ORAL HEALTH PROGRAMME
MINISTRY OF HEALTH
MALAYSIA

THE DENTAL PUBLIC HEALTH SPECIALIST UNIT:

A Guide to Implementation and Operations

PREVENT

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GUIDE

COMMUNITY

2026

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Statement of Intent
The Dental Public Health Specialist Unit: A Guide to Implementation and Operations (2026) has been developed in alignment with current policies and evidence-based practices. The purpose of this document is to ensure the provision of standardised, consistent, and high-quality oral healthcare across all services rendered by oral health personnel within the unit. This edition represents a comprehensive revision and update of the Guidelines for the Implementation of the Dental Public Health Specialist Unit (2019) and formally supersedes the previous guidelines.

Review of the Standard Operating Procedures
This document was issued in 2026 and will be reviewed in 2031 (5 years) or earlier if important new evidence becomes available.

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i. The application of the Dental Public Health Specialist Unit: A Guide to Implementation and Operations is subject to the prevailing policies, regulations, and relevant directives currently in force.
ii. All titles, designations, and form labels referenced in this document are specific to the current guidelines and may be revised or updated as necessary in the future. These terms are intended for use within the scope of this document and are subject to change in accordance with evolving standards or requirements.

FOREWORD

The Operational Manual: Dental Public Health Specialist Unit (DPHSU) is a comprehensive manual designed to standardise practices, enhance service quality, and promote consistency across all DPHSU in the country. It reflects our commitment to equipping oral healthcare providers with clear protocols, evidence-based guidelines, and practical tools to meet the evolving needs of our population. In an era where healthcare demands are increasingly complex, this manual served as a proactive step toward improving operational workflows, optimising resource utilisation, and fostering a holistic patient-centred approach.

The DPHSU concept aims to assess and improve oral health through the Family Wellness Concept (FWC). It addresses patient needs within operators' competencies, from behavioural changes to restorative treatments. By focusing on family units as change agents, FWC enhances the community's oral health and quality of life. By implementing this, we will foster a more cohesive and efficient oral healthcare system, aligning with the Ministry of Health's vision of "A Nation Working Together for Better Health."

I extend my deepest appreciation to the Oral Health Programme and all contributors for their diligent efforts and unwavering dedication in developing this manual. Their expertise and commitment to excellence have culminated in a document that will undoubtedly fortify our DPHSUs, enhancing care delivery to all who rely on these essential services. Let us continue to be guided by our collective mission to provide equitable, high-quality healthcare to every individual, ultimately improving the overall oral health of the population in Malaysia.

Datuk Dr. Mahathar bin Abd Wahab
Director General of Health Malaysia

FOREWORD

In recent years, the field of dentistry has experienced a profound transformation, shifting towards an unwavering commitment to excellence in patient-centred care. Our approach has evolved from merely addressing dental diseases to prioritizing prevention and fostering overall wellness within the comprehensive 'Health and Wellness' concept. This holistic philosophy emphasizes the significance of preventive care and early detection, aligning perfectly with the goals outlined in the Global Oral Health Action Plan 2023–2030.

The development of this document is a testament to our shared vision of establishing a standardised, accessible, and high-quality oral healthcare system tailored to meet the needs of all Malaysians. It serves as a valuable guide for oral healthcare providers, empowering them to deliver efficient, evidence-based care that caters to the diverse needs of our population.

This document reflects the collective effort and unwavering dedication of all stakeholders involved, ensuring the highest standards in oral health delivery. I extend my heartfelt gratitude to the committee and all contributors for their relentless hard work and dedication in bringing this document to fruition. Your invaluable contributions have laid the foundation for a brighter future in oral healthcare for our nation, setting new benchmarks for excellence and compassion in patient care. Together, we are paving the way for healthier smiles and improved well-being for all.

Dr. Fauziah binti Ahmad
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GLOSSARY OF TERMS

AI	Artificial intelligence
3A	Ask-Assess-Arrange
5A	Ask-Assess-Advice-Assist-Arrange
5A (modified)	Ask-Assess-Advice-Agree-Assist
5R	Relevance-Risk-Reward-Roadblocks-Repetition
3R	Risk-Relevance-Reward
ACP	Amorphous Calcium Phosphate
AUDIT-C	Alcohol Use Disorder Identification Test-Consumption
CPP-ACP	Casein Phosphopeptide Amorphous Calcium Phosphate
CSP	Calcium Sodium Phosphosilicate
CO	Carbon Monoxide
CRA	Caries Risk Assessment
DO	Dental Officer
DPHS	Dental Public Health Specialist
DPHSU	Dental Public Health Specialist Unit
DSA	Dental Surgery Assistant
DT	Dental Therapist
FV	Fluoride Varnish
FWC	Family Wellness Concept
HA	Healthcare Assistant
KBM	Klinik Berhenti Merokok
L-OHIP (M)	Malaysian Oral Health Impact Profile Questionnaire- Long Form
Malay-MCDAS	Malay-Modified Child Dental Anxiety Scale
MI	Motivational Interviewing
MOH	Ministry of Health
NRT	Nicotine Replacement Therapy
OHE	Oral Health Education
OHLS-M-Q18	Oral Health Literacy Questionnaire
OSCA	One Stop Centre for Addiction
OSCC	Oral Squamous Cell Carcinoma
OPMD	Oral Potentially Malignant Disorders
PPYM	Pegawai Pergigian Yang Menjaga
PRR	Preventive Resin Restoration
QA	Quality Assurance
SDF	Silver Diamine Fluoride
S-OHIP (M)	Malaysian Oral Health Impact Profile Questionnaire- Short Form
TCP	Tri-Calcium Phosphate
T.E.R.	Total Energy Requirement

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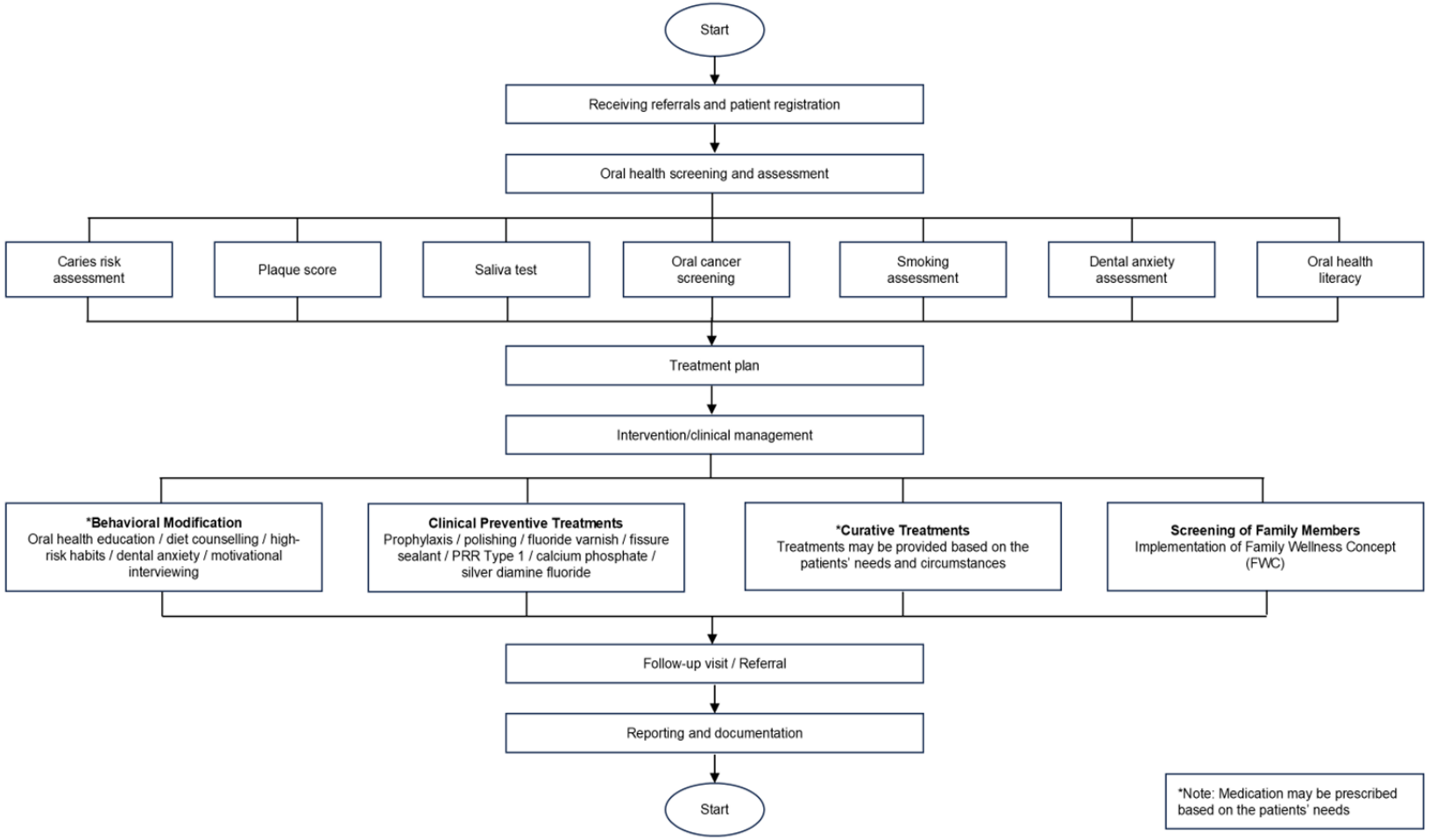

Flow chart of patient management in Dental Public Health Specialist Unit (DPHSU)

01

INTRODUCTION

1. INTRODUCTION

1.1 Background and Purpose

The Dental Public Health Specialist Unit (DPHSU) was established in 2019 with its main aim of reducing the non-communicable oral disease burden, including dental caries, periodontal disease and high-risk habits associated with oral cancer. Findings from the recent National Oral Health Survey of Adults (NOHSA) 2020 reports a high prevalence of oral diseases; caries prevalence (85.1%) with DMFT of 9.7, periodontal disease (94.5%), and 30% of the population mostly the *Orang Asli* are practicing betel quid chewing.[1] In addition, its focus on the population's dental health, which involves the Family Wellness Concept (FWC) holds its unique features. Patients are managed according to their needs which may range from behavioural modification to restorative treatments that can be done within the operators' competency in the unit. In line with this, high-risk individuals are identified as markers, while family members are then captured to ensure that the oral health status and quality of life of the community is improved.[2]

Adoption of FWC which focuses on family units as an agent of change eventually will improve the oral health status and quality of life of the community. Emphasis on behavioural modification within the family unit will enhance positive oral health practices that subsequently impact the reduction of oral burden among the population in Malaysia. Further, DPHSU also prioritizes clinical prevention care delivery along with advocacy of oral health promotion which has been evident to be a crucial factor in modifying oral health status in individuals. Clinical prevention care ensures early detection and treatment of oral health problems, while oral health promotion educates the public and raises awareness about the importance of maintaining good oral hygiene and visiting the dentist regularly. This document constitutes a revised and updated edition of the Guidelines for the Implementation of the Dental Public Health Specialist Unit (2019)[2] and hereby supersedes the earlier version.

[1] Oral Health Programme, Ministry of Health Malaysia. 2024. National Health and Morbidity Survey 2020: National Oral Health Survey of Adults 2020 (NHMS 2020: NOHSA 2020): Available from: https://hq.moh.gov.my/ohp/index.php/ms/

[2] Oral Health Programme, Ministry of Health Malaysia. 2019. Guidelines Implementation of Dental Public Health Specialist Unit. Vol. 1. Ministry of Health Malaysia.

1.2 Overview of the Document

This document incorporates subtopics that are relevant to the DPHSU. The document details on:

i. Scope and target audiences
ii. Organisational structure
iii. Operational policies and procedures
iv. Oral health clinical management
v. Data management
vi. Monitoring and evaluation
vii. Resources management
viii. Training and professional development
ix. Research initiatives

The document is closely developed taking into consideration the practice of five (5) DPHSUs that are currently operating across the country. Three pilot units were set up in Klinik Pakar Pergigian Kota Setar (Kedah), Klinik Pergigian Bandar Botanik (Selangor), and Klinik Pergigian Kuala Sungai Baru (Melaka). Furthermore, two DPHSUs have recently commenced at Pusat Pakar Pergigian Negeri Sembilan and Pusat Pakar Pergigian Sabah. With the evolution of time, the Oral Health Programme will have an increasing number of DPHSUs established in the country.

Cases that are seen in the DPHSU are all referred cases from the primary and specialist clinics. Services delivered in the current DPHSU include oral health education, preventive treatments, curative treatments, diet counselling, and smoking cessation counselling (**Figure 1.1**). The total of new and repeated attendances with trends in three pilots DPHSU are depicted in **Figure 1.2** and **Figure 1.3.**

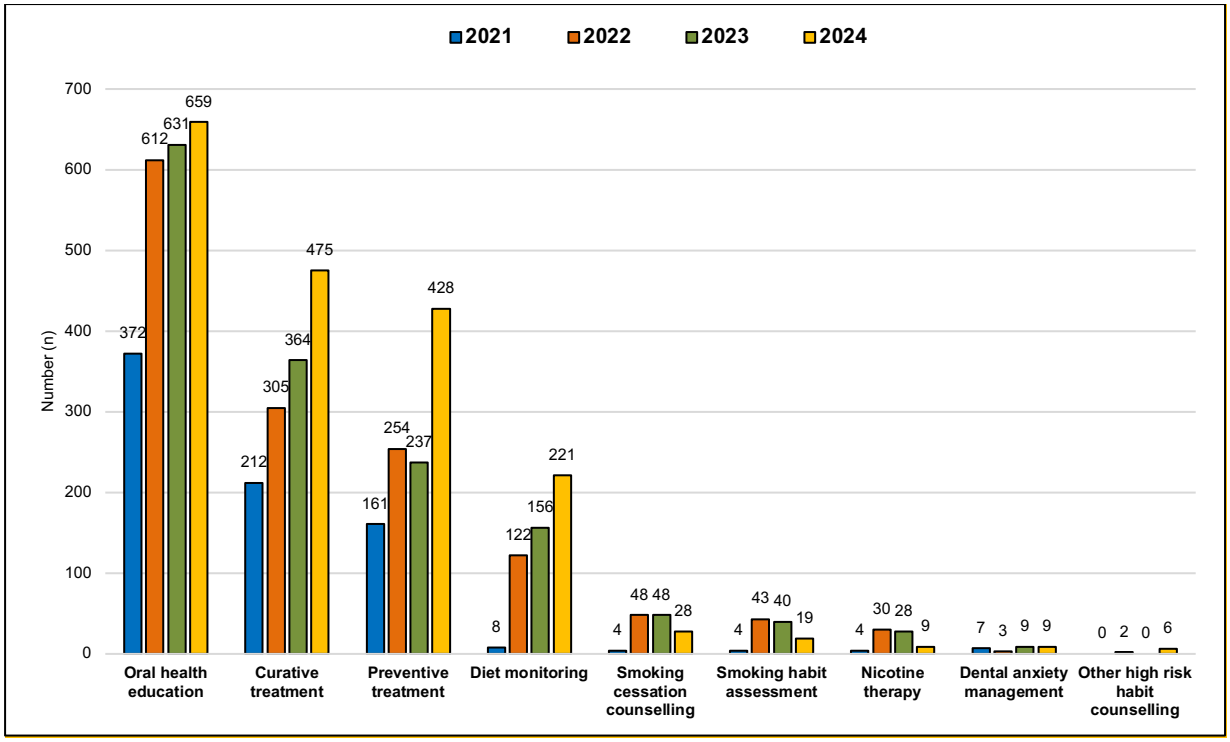

Figure 1.1: Oral health services in DPHSU from 2022 – 2024

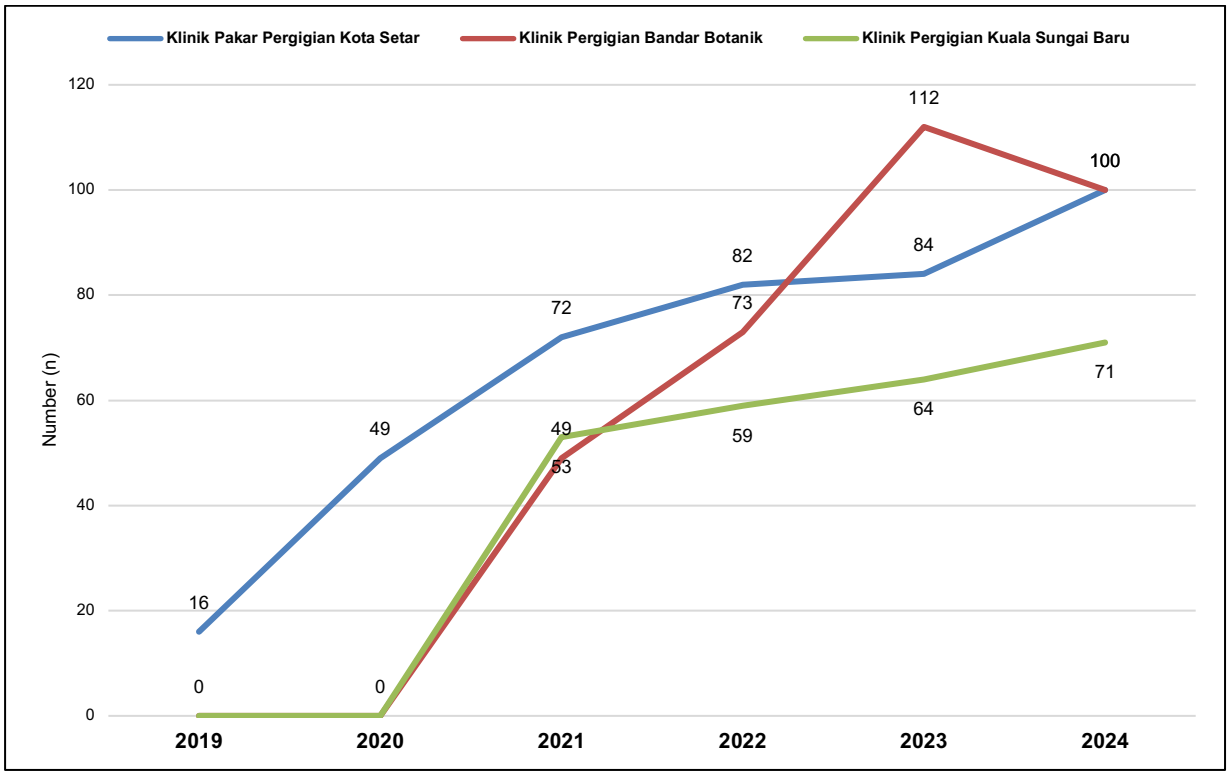

Figure 1.2: Trend of new patients' attendance in DPHSU from 2019 – 2024

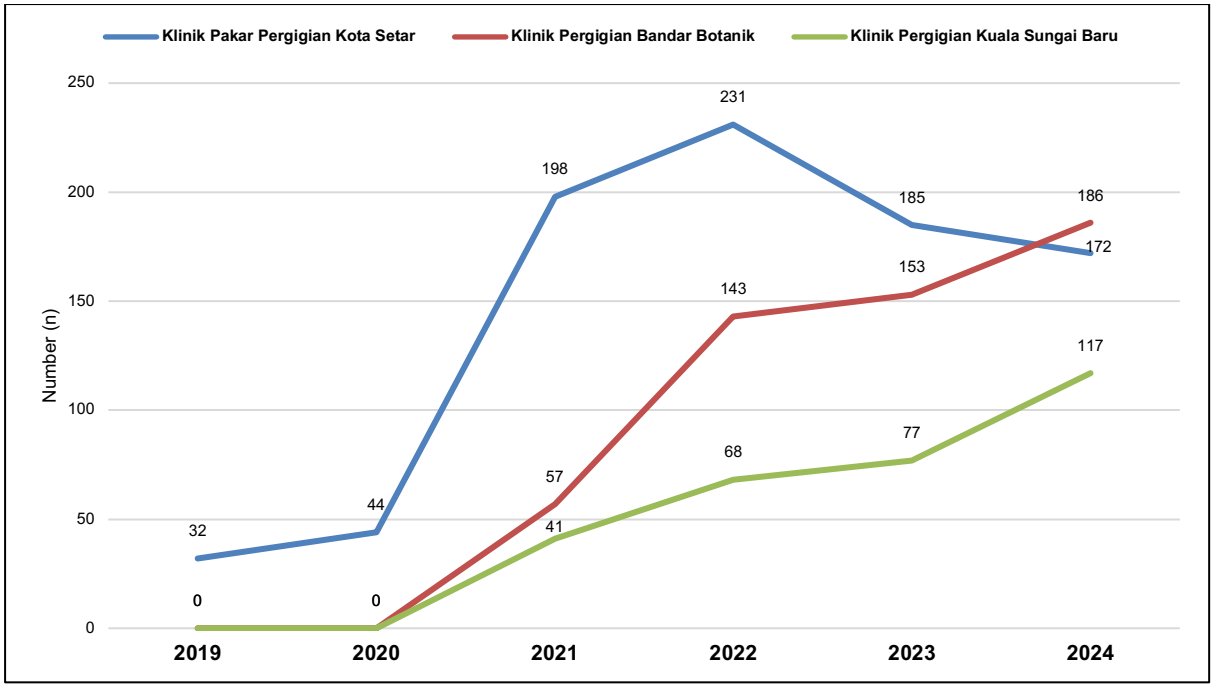

Figure 1.3: Trend of repeated patients' attendance in DPHSU from 2019 – 2024

1.3 Rationale

This document is a revised and updated version of the previous Guidelines for the Implementation of Dental Public Health Specialist Unit (2019) and supersedes the earlier edition. With the increasing number of DPHSUs being established across oral healthcare facilities in Malaysia, this document will serve as a reference to assist the establishment of the DPHSUs and as a guide for the operators and their teams in delivering oral healthcare services to their respective patients.

Furthermore, it is specifically designed to standardise the DPHSU team in terms of services provided and organisational structure. All oral health personnel involved in treating patients in DPHSUs are required to comply with this document. Adhering to the document ensures a standardised system of operations across all DPHSUs in the country.

02

OBJECTIVES, SCOPE AND TARGET AUDIENCE

2 OBJECTIVE, SCOPE, TARGET AUDIENCE AND POPULATION

2.1 Objective

2.1.1 General Objective

To establish a document for the DPHSU to ensure consistency and high-quality oral healthcare across all services provided by the unit's oral health personnel.

2.1.2 Specific Objectives

i. To develop an organisational structure along with operational policies and procedures that ensure the efficient and effective functioning of the unit.
ii. To formulate standard operating procedures for oral health screening and assessment, treatment planning, behaviour modification, preventive and curative treatments to reduce the prevalence of oral diseases in the community.
iii. To design data management, monitoring, and evaluation frameworks for assessing the impact of oral health services delivered by the unit.

2.2 Scope

The scope of this document encompasses a comprehensive overview and key components, including the organisational structure, operational policies and procedures, oral health clinical management, data management, and monitoring and evaluation.

2.3 Target Audience

i. Dental Public Health Specialists and Dental Officers: Provide direct patient care.
ii. Dental Therapists, Dental Surgery Assistants, and Healthcare Assistants: Supporting staff involved in patient scheduling, preventive and promotional activities, as well as administrative tasks of the DPHSU.

2.4 Target Population

i. Patients referred from other units or specialties.
ii. Specific populations experiencing a higher burden of oral health conditions, such as children, older adults, individuals with disabilities, and their family members.

03

ORGANIZATIONAL STRUCTURE

3. ORGANISATIONAL STRUCTURE

The DPHSU is established in three (3) categories of oral health facilities which are the Dental Specialist Centre (Non-Hospital Based), Dental Specialist Clinic (Non-Hospital Based) and Primary Dental Clinic, specifically Type I and Type II Dental Clinic. A well-defined organisational structure is essential to effectively manage, plan, monitor and evaluate the DPHSU services.

3.1 Dental Specialist Centre (Non-Hospital Based), Dental Specialist Clinic (Non-Hospital Based) and Primary Dental Clinic

The DPHSU team should consist of:

i. Dental Public Health Specialist (DPHS)
ii. Dental Officer (DO)
iii. Dental Therapist (DT)
iv. Dental Surgery Assistant (DSA)
v. Healthcare Assistant (HA)

The organisational chart for the DPHSU at the Dental Specialist Centre/Clinic (Non-Hospital Based) / Primary Dental Clinic can be found in **Appendix 1.** The establishment of a DPHSU is subject to the availability of facilities, the requirements for oral health personnel, and the type of clinic.

3.2 Staff Roles and Responsibilities

The DPHSU team consists of a dedicated group of oral health professionals committed to ensuring comprehensive oral healthcare for patients. The personnel within the DPHSU work collaboratively to provide quality dental care and services. They are responsible for patient care, clinical documentation, treatment planning, and ensuring the smooth operation of the unit, all while adhering to established health protocols and standards. The key roles and responsibilities of each oral health professional are summarised in **Table 3.1.**

Table 3.1: Roles and responsibilities of the DPHSU personnel

Position	Roles and responsibilities
Dental Public Health Specialist	● plan, manage, monitor, and evaluate DPHSU activities ● formulate treatment plans ● perform dental procedures and other relevant activities based on treatment plans ● provide comprehensive oral health clinical management ● involve in multidisciplinary clinic ● plan and moderate training for oral health personnel ● review, monitor, and evaluate DPHSU performance ● provide research consultation ● record keeping ● monitor and supervise oral health personnel in DPHSU
Dental Officer	● conduct initial examination and diagnosis and risk assessment ● obtain patient consent ● formulate treatment plans and discuss treatment plans with DPHS ● carry out recommended treatments based on treatment plans ● provide comprehensive oral health education regarding proper hygiene practices, preventive measures, and compliance with regular dental check-ups ● record keeping ● assist DPHS in planning and monitoring promotional and quality assurance activities
Dental Therapist	● perform and monitor clinical prevention activities on children ● assist DPHS/DO in planning and monitoring promotional activities and clinical prevention activities ● screen/ conduct 3A's activities for smokers ● compile monthly clinical record ● monitor infection control activities ● monitor implementation of Occupational Safety and Health Management Guidelines ● assist DPHS/DO in planning and monitoring quality assurance activities ● monitor dental auxiliaries in the DPHSU
Dental Surgery Assistant	● prepare treatment room, dental materials, instruments, and equipment based on SOPs ● assist DPHS/DO in patient management before, during, and after each clinical session ● assist DPHS /DO during promotional activities ● ensure infection control activities are implemented based on SOPs ● ensure all dental equipment is functioning well and maintained according to schedule ● prepare daily and monthly clinical records
Healthcare Assistant	● prepare dental materials, instruments, and equipment ● disinfect the surgery room before and after each dental procedure ● clean and sterilise dental instruments ● assist the DT during dental procedures and promotional activities

04

OPERATIONAL POLICIES AND PROCEDURES

4. OPERATIONAL POLICIES AND PROCEDURES

4.1 Referral Protocol

The DPHSU offers care to patients of all categories on a referral basis. Referrals may originate from primary oral healthcare clinics or specialist clinics. Below is the flow chart of the referral protocol for the DPHSU (**Figure 4.1**).

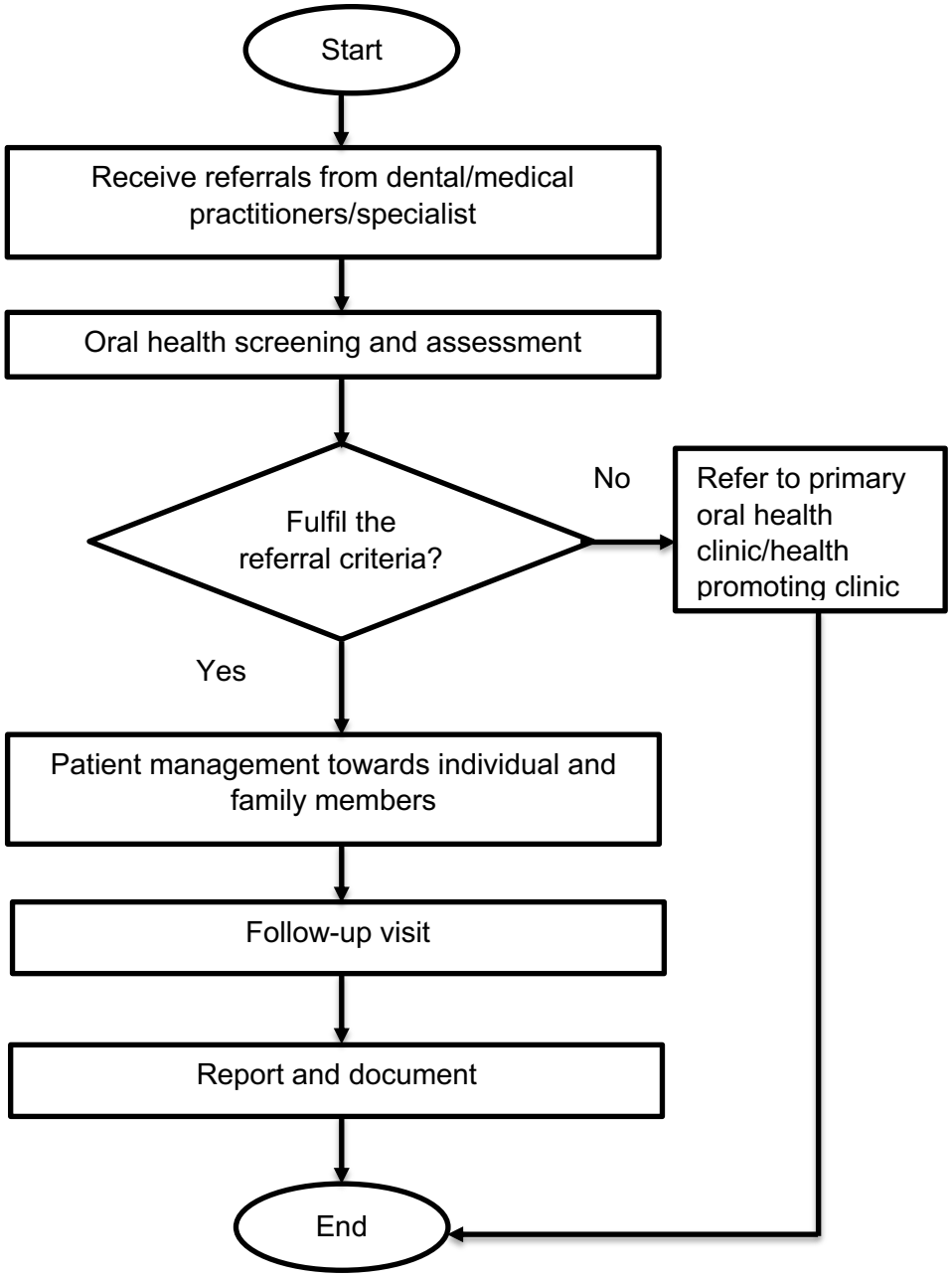

Figure 4.1: Referral protocol in the DPHSU

The referral form can be found in **Appendix 2**.

4.2 Appointment Scheduling

In the DPHSU, patients are referred from primary and specialist oral healthcare settings based on specific referral criteria outlined in **Appendix 2**. These criteria ensure that patients who meet specific needs are directed to DPHSU for appropriate care. The flow chart for appointment scheduling can be found in **Appendix 3**. The key elements of the appointment scheduling process in the DPHSU are as follows:

i. Referral reception

Patients are referred to the DPHSU by primary care providers (dental/medical practitioners) or specialists based on established criteria in the Guidelines for the Implementation of the Dental Public Health Specialist Unit.[2]

ii. Appointment availability

The Dental Officer/Dental Surgery Assistant will check the availability of the appointment slot and give an appointment date.

iii. Screening and assessment

During the initial visit to the DPHSU, a thorough assessment of the patient's oral health is conducted. This includes history taking, a comprehensive oral examination and a risk assessment.

iv. Case presentation and treatment

The case will be presented by the Dental Officer, who will outline a detailed overview of the patient's medical history, current condition, and proposed treatment options. The DPHS will review the information, discuss the case, and provide feedback or recommendations. Based on this collaborative discussion, a final treatment plan will be determined and approved. Treatment is provided in accordance with the approved treatment plan, ensuring that all recommended procedures and interventions align with the established care plan.

v. Follow-up appointments

Once the treatment plan has been finalised, the patient will be scheduled for the necessary follow-up appointments based on the outlined treatment plan. These appointments will be scheduled according to the treatment plan's timeline and the patient's availability.

4.3 Patient Registration and Records

A good dental record is crucial and serves as a benchmark for quality dentistry and a standard of care that patients receive from dental practitioners. A comprehensive dental record will provide the clinicians with the necessary information about the patient and safeguard the practitioner in a medico-legal situation if it arises. Record keeping should adhere to Guidelines for Dental Record Keeping and Dental Charting (2023) and *Garis Panduan Pengendalian dan Pengurusan Rekod Perubatan Pesakit di Fasiliti KKM* (2023).[3,4] The following activities will be conducted at the DPHSU based on the key components of the clinical record:

i. Patient registration

Upon arrival at the dental clinic, the patient will be registered using the PG101B (Pin.1/2022) book at the registration counter by the counter staff. All relevant personal information will be recorded.

ii. Treatment record

The DPHS or DO will document all relevant findings, starting with the purpose of the visit or chief complaint, followed by the medical, dental, and social history. This will include the clinical examination, any investigations carried out with relevant results, the diagnosis, treatment plan, patient consent, progress notes, and discharge notes. All findings will be recorded in L.P.8-1 Pin.8/2019 or L.P.8-2 Pin.8/2019, as appropriate.

[3] Malaysian Dental Council. 2023. Guidelines for Dental Record Keeping and Dental Charting.
[4] Bahagian Perkembangan Perubatan, Kementerian Kesihatan Malaysia. 2023. Garis Panduan Pengendalian dan Pengurusan Rekod Perubatan Pesakit di Fasiliti KKM.

iii. Daily and monthly clinical data

Oral health personnel shall record daily clinical data in the Online Dental Information System. Monthly clinical data can be generated from the Online Dental Information System using the PG 201 UPPKA (Laporan Bulanan Bagi Perkhidmatan Unit Pakar Pergigian Kesihatan Awam) report **(Appendix 31)**.

iv. Filing of treatment record

The Healthcare Assistant will file all treatment records appropriately, ensuring they are organised and stored according to the established procedures. The flow chart for patient registration and record-keeping can be found in **Appendix 4.**

4.4 Family Wellness Concept

The DPHSU is established to improve oral health through Family Wellness Concept (FWC). FWC in oral health focuses on promoting and maintaining good oral health for all members of a family, ensuring that everyone, from children to adults, has access to preventive care, oral health education, and treatment to support their overall well-being. Within this framework, high-risk individuals are identified, and a holistic approach is taken to trace and assess their high-risk family members.

The key aspects of family wellness concept in oral health are:

i. Prevention Through Education: Teaching all family members, from young children to elderly adults, the importance of proper oral hygiene, including brushing and flossing techniques, diet, and the avoidance of harmful habits like smoking, alcohol consumption and betel quid chewing. Regular visits to the dentist for check-ups are also vital for preventing issues like dental caries, periodontal disease, and oral cancer.

ii. Early Intervention for Children: The American Academy of Paediatric Dentistry recommends the first dental appointment by 12 months of age or within 6 months after the eruption of the first tooth[5]. Early dental check-ups not only help establish a

[5] Alkharbid DA, Babutain MM, Hamam WM, Alzahrani GA, Almanea HA, Aljehani FY, Alhurayyis RM, Shahir NY, Almubarak SA, Halawani MA & Baafeef MA. 2024. Age of First Dental Visit Among Children: Reasons of the Visit and the Treatment Needed. Cahiers Magellanes-NS; 6(2):8612-25.

foundation for lifelong oral health habits but also allow for timely identification and management of potential issues such as malocclusion, tooth decay, or prolonged thumb-sucking. Addressing these concerns early can improve treatment outcomes and help minimise the need for more complex treatment in the future.

iii. Family-Specific Care Plans: Recognising that each family member may have different needs, whether it is dental care for growing children, orthodontic treatment, or oral care for ageing adults. A family-focused wellness plan can be developed with the guidance of a dentist, addressing everyone's unique needs, from preventive care to restorative treatment.

iv. Diet and Nutrition: Promoting family-wide habits that support a balanced diet is essential for maintaining good oral health. Nutrients such as calcium, phosphorus, and vitamins, especially vitamin C and vitamin D which play a critical role in strengthening teeth and supporting healthy gums. Encouraging the consumption of nutrient-rich foods like dairy products, leafy greens, fruits, and lean proteins can help build a strong foundation for oral health. Equally important is limiting sugary snacks and beverages, which contribute to tooth decay and other dental problems. Establishing these dietary habits early can benefit the entire family and reinforce positive routines for children.

v. Routine and Consistency: Establishing a consistent oral care routine for the whole family is essential. Brushing twice a day with fluoride toothpaste, flossing, and using mouthwash when appropriate. Creating family routines where everyone participates in oral health can also strengthen family bonds and support accountability.

The FWC emphasises the interconnectedness between oral health and overall family well-being. It recognises that oral health not only affects individual health but also has a significant impact on family dynamics and quality of life. This approach encourages families to adopt preventive habits, maintain regular oral care, and establish healthy routines that support the well-being of all family members. Within the DPHSU, this concept was introduced with the objective of improving population-level oral health. Rather than focusing solely on individual treatment, the approach targets groups and emphasises behavioural changes that promote sustainable, long-term oral health practices. The ultimate goal is to foster a culture of wellness that benefits entire families and communities.

The important elements of family members' referral to the DPHSU are:

i. Identification of high-risk individual in the family

High-risk individuals within the family are identified as key indicators (or "markers") for potential oral health concerns. These individuals serve as entry points for further family-based intervention

ii. Consent and Approval from Family Members

Prior to any intervention, informed consent must be obtained from family members. This includes approval for oral health screening and risk assessments. The consent form template is available in **Appendix 5**.

iii. Oral Health Screening and Risk Assessment

A comprehensive oral health screening and risk assessment will be carried out for all consenting family members. Based on established criteria, individuals who meet the referral will be referred to the DPHSU for further evaluation and management.

iv. Patient Management

Following assessment, appropriate oral health management strategies will be implemented for each family member based on their risk status. This may include preventive care, treatment plans, health education, and behaviour modification strategies.

v. Follow-Up

Regular follow-up sessions will be scheduled to monitor the progress of each family member, reinforce healthy behaviours, and update care plans as needed.

vi. Reporting and Documentation

All findings, interventions, and outcomes will be systematically recorded. Documentation will be used for evaluating programme effectiveness, tracking family health progress, and contributing to public health data.

The flow chart of referral protocol of family members is available in **Appendix 6**.

4.5 Infection Control Protocol

Dental treatment has a high risk of infection due to the proximity between dental practitioners, assistants, and patients which creates a unique risk for infection transmission. Transmission of microorganisms in dental practice may occur by direct contact with infected blood and body fluids, indirectly via contaminated instruments, material, equipment and surfaces, or by inhalation/ingestion of the microorganisms in the form of bio-aerosols or droplets.[6,7,8] Thus, infection control activities in DPHSU should strictly comply with the following guidelines:

i. Guidelines on Infection Control in Dental Practice 2017[6]
ii. Practice standards and guidance for infection prevention and control in dental practice 2026 (at the time of writing, the guideline had not yet been published)
iii. Methods of Disposal of Hypodermic Needles 2013[9]
iv. Guidelines for Oral Healthcare Practitioners Infected with Blood-Borne Viruses 2014[10]
v. Position Statement on the Use of Dental Amalgam 2020[11]

In addition, specialised equipment is also used in DPHSU namely smokerlyzer and alcohol breathalysers. The equipment also needs to be properly sterilised before and after each procedure which is reflected in **Appendix 7**.

4.6 Quality Assurance Measures

The DPHSU team is encouraged to participate actively in various quality assurance (QA) activities to ensure high standards of oral healthcare delivery. These activities are crucial for monitoring, evaluating, and enhancing healthcare services. Below is a breakdown of the essential and suggested QA activities for inclusion in the DPHSU.

[6] Malaysian Dental Council. 2017. Guidelines on Infection Control in Dental Practice.
[7] Kim MS. 2021. A Study of Awareness and Practice of Infection Control of Dental Hygiene Students during Clinical Practice. *International Journal of Clinical Preventive Dentistry*; 17(2): 36-43.
[8] Mahasneh AM, Alakhras M, Khabour OF, Al-Sa'di AG & Al-Mousa DS. 2020. Practices of infection control among dental care providers: a cross-sectional study. *Clinical, Cosmetic and Investigational Dentistry*; 281-289.
[9] Malaysian Dental Council. 2013. Methods of Disposal of Hypodermic Needles.
[10] Malaysian Dental Council. 2014. Guidelines for Oral Healthcare Practitioners Infected with Blood-Borne Viruses.
[11] Malaysian Dental Council. 2020. Position Statement on the Use of Dental Amalgam.

Essential QA activities:

1. **Clinical Audit**: Regular reviews of clinical practices and patient outcomes are essential to identify areas for improvement, ensuring that healthcare practices are in line with the best evidence-based guidelines.
2. **Key Performance Indicator (KPI)**: Setting clear and measurable goals related to healthcare performance helps to track progress, maintain quality standards, and identify areas that require improvement.
3. **MS ISO**: Ensuring that the healthcare services are compliant with recognised quality standards. MS ISO certification serves as a mark of commitment to continuous improvement and best practices.
4. **Client Satisfaction Survey**: Gathering feedback from clients on their experiences and satisfaction with services allows the DPHSU to assess the quality of care provided, identify any gaps, and make informed decisions on service improvements.
5. **Credentialing and Privileging**: A process to ensure that healthcare providers possess the necessary qualifications, competencies, and experience to deliver safe and effective care. This process also involves defining the scope of practice for each provider.

Suggested additional QA activities:

- **Lean Healthcare**: Applying lean principles in healthcare to eliminate waste, streamline processes, and improve the efficiency of service delivery, ultimately enhancing patient care and reducing costs.
- **District-Specific Approach**: Tailoring healthcare services to meet the unique needs and challenges of the specific district, ensuring that solutions are localised and more effective in addressing local health issues.
- **Healthy Setting**: Creating environments that promote health and well-being within healthcare facilities, workplaces, and communities. This approach aims to make health a part of everyday life and contributes to long-term well-being.
- **Innovation**: Encouraging the adoption of new ideas, technologies, and approaches in healthcare services. Innovations can improve efficiency, accessibility, and the quality of care provided.
- ***Ekosistem Kondusif Sektor Awam***: Fostering an ecosystem where the public

sector can operate efficiently, with a focus on collaboration, resource-sharing, and a supportive environment for health initiatives.

- **Star Rating**: Implementing a rating system for healthcare services that evaluates various aspects such as infrastructure, service quality, and patient satisfaction. This rating serves as a benchmark for continuous improvement.
- **Quality Assurance Study**: Conducting studies to assess the effectiveness of quality assurance activities, identify gaps, and determine how improvements can be made. This ensures that the healthcare system is aligned with high standards and is consistently improving.

By including both essential and suggested QA activities, healthcare services can be continually improved, meeting the needs of the population while maintaining a high level of patient satisfaction and safety.

4.7 Dental Treatment Fees

Dental treatment fees apply to all clinical procedures in accordance with the Fees (Medical)(Amendment) Order 2017.

05

ORAL HEALTH CLINICAL MANAGEMENT

5. ORAL HEALTH CLINICAL MANAGEMENT

Oral health clinical management incorporates evidence-based practices to improve patient outcomes and overall well-being. As a key component of this document, it encompasses the following:

1) Oral health screening and assessment
2) Treatment plan
3) Behavioural modification
4) Clinical preventive treatment
5) Curative treatment
6) Virtual dental clinic
7) Multidisciplinary clinic

5.1 Oral Health Screening and Assessment

In dental care, oral health screening involves a comprehensive assessment of the patient's history and oral health status that leads to diagnosis and risk assessment, followed by personalised care planning and ongoing review. All the information gathered from the oral health assessment is recorded in L.P.8-1 PIN.8/2019 or L.P.8-2 PIN.8/2019. **Table 5.1** below shows oral health screening and assessment steps in the DPHSU.

Table 5.1: Oral health screening and assessment steps in the DPHSU

Steps	Explanation
Chief Complaint	The primary reason for a patient's visit or consultation. It relates to oral health concerns or issues with the teeth, gums, or mouth.
Medical History	A patient's medical history is a comprehensive record of their past and current health conditions, medications, allergies, surgeries, and other relevant medical information. Obtaining a thorough medical history is essential for providing safe and effective dental care, as certain medical conditions and medications may affect oral health and influence treatment decisions.
Social History	Social history refers to a patient's personal and lifestyle factors that may have an impact on their health and well-being. It includes information about the patient's living situation, social support network, employment status, education level, hobbies, and

Steps	Explanation
	recreational activities, as well as any behaviours or habits that may affect their health.
Dental History	Dental history refers to a patient's past and current dental health status, including relevant information about their oral health, dental treatments, and oral hygiene practices. Obtaining a comprehensive dental history is essential for dental professionals to understand a patient's oral health needs, identify potential risk factors, and develop personalised treatment plans.
Risk Assessment	i. Caries Risk Assessment (CRA) – including plaque score and saliva test ii. Smoking Assessment iii. Oral Cancer Screening iv. Dental Anxiety v. Oral Health Literacy
Examination	i. General Condition: assess the patient's overall appearance ii. Extraoral iii. Intraoral
Investigation	i. Pulp Vitality ii. Pulp Sensibility iii. Radiographic Examination
Diagnosis	Formulating a definitive diagnosis based on the findings from the patient's history, examination and diagnostic tests.

5.1.1 Caries Risk Assessment

Caries Risk Assessment (CRA) is a systematic approach used to identify and evaluate the factors influencing an individual's risk of developing dental caries. It plays a crucial role in modern dentistry by emphasising a preventive and patient-centred approach. Studies have shown that CRA enhances preventive dental care, resulting in better patient outcomes through personalised and proactive management strategies[12,13]. In the DPHSU, CRA responses should be evaluated and recorded in PRK [UPPKA.2018], **Appendix 8**. The assessment form is adapted from the American Dental Association (2009) and is designed to capture key factors that can be readily observed or identified during routine oral health evaluations. It generally consists of three components, with each condition categorised into low, medium, and high risk.

[12] Ng TCH, Luo BW, Lam WYH, Baysan A, Chu CH & Yu OY. 2024. Updates on Caries Risk Assessment - A Literature Review. Dentistry Journal, 12(10), 312.
[13] Cagetti MG, Bonta G, Cocco F, Lingstrom P, Strohmenger L & Campus G. 2018. Are standardized caries risk assessment models effective in assessing actual caries status and future caries increment? A systematic review. BMC Oral Health, 18, 1-10.

The applicable conditions should be circled or marked. The CRA risk classification is based on the conditions present in each category and helps prioritise higher-risk factors to guide suitable prevention or treatment strategies. Low Risk = only conditions in "Low Risk" column present; Moderate Risk = only conditions in "Low" and/or "Moderate Risk" columns present; High Risk = one or more conditions in the "High Risk" column present.

A. General Health

I. Patients with special needs (developmental, physical, medical or mental disabilities that prevent or limit oral health care by the patient themselves or caregivers)

Due to the varied and complex needs of patients with special requirements, individualised CRAs are essential. Specific populations, such as children who have autism, congenital heart disease, cerebral palsy, or Down syndrome, experience a higher burden of caries and greater caries risk compared to controls[14]. This target group should be classified as high risk for individuals aged 14 years and younger, while those over 14 years of age should be classified as medium risk. Individuals without special needs should be considered low risk.

II. Chemotherapy/Radiotherapy

Both chemotherapy and radiotherapy significantly elevate the risk of dental caries in patients undergoing cancer treatment.[15] These therapies can lead to oral complications such as xerostomia (dry mouth), altered salivary composition, and changes in oral flora, all of which contribute to an increased susceptibility to caries[16,17]. In this assessment, patients who have undergone chemotherapy and radiotherapy should be classified as high risk, while those for whom these treatments are not applicable should be considered low risk.

[14] Frank M, Keels MA, Quinonez R, Roberts M & Divaris K. 2019. Dental caries risk varies among subgroups of children with special health care needs. Pediatric Dentistry, 41(5), 378-384.
[15] Longo BC, Rohling IB, Silva PL, Paz HE, Casarin RC, Souza MDB & Silva CO. 2024. Antineoplastic therapy is an independent risk factor for dental caries in childhood cancer patients: a retrospective cohort study. Supportive Care in Cancer, 32(5), 316.
[16] Pombo Lopes J, Rodrigues I, Machado V, Botelho J & Bandeira Lopes L. 2023. Chemotherapy and radiotherapy long-term adverse effects on oral health of childhood cancer survivors: a systematic review and meta-analysis. Cancers, 16(1), 110.
[17] Mohammadi N, Seyednejad F, Oskoee PA, Oskoee SS & Chaharom MEE. 2008. Evaluation of radiation-induced class V dental caries in patients with head and neck cancers undergoing radiotherapy. Journal of Dental Research, Dental Clinics, Dental Prospects, 2(3), 82.

III. Difficulty chewing or swallowing food

Some individuals may require specialised diets, such as soft, pureed, or thickened liquids, due to difficulties in chewing or swallowing. This can increase their risk of dental caries, as it may be challenging for them to remove these foods from their teeth, and they may also rely on others to assist with their oral hygiene.[18] As a result, these individuals are more likely to have a higher prevalence of dental caries.[19,20] Based on this assessment, patients with these difficulties should be classified as moderate risk, while those without such difficulties should be considered low risk.

IV. Taking medications that affect saliva flow

Certain medications, such as antidepressants, antipsychotics, β-blockers, antihistamines, and anticholinergics, can lead to xerostomia (dry mouth), which increases the risk of dental caries and significantly increases DMFT scores.[21,22] These medications increase susceptibility to caries by consistently reducing salivary flow, impairing saliva's natural ability to neutralise oral acids, and potentially leading individuals to consume more sugary drinks and foods to relieve dry mouth discomfort.[23] Using this assessment, patients taking medications that affect saliva flow should be identified as moderate risk, while those not taking such medications should be considered low risk.

V. Excessive drug/alcohol intake

Substance use including methamphetamines, heroin, opiates, cocaine, cannabis, and crack, can lead to dry mouth, decreased saliva flow, poor oral hygiene, and increased consumption of cariogenic substances, all of which significantly raise the risk of dental caries.[24] Excessive alcohol consumption may contribute to an increased risk of dental

[18] Chavev EM, Wong LM, Subar P, Young DA & Wong A. 2018. Dental care for geriatric and special needs populations. Dental Clinics, 62(2), 245-267.
[19] Ortega O, Parra C, Zarcero S, Nart J, Sakwinska O & Clave P. 2014. Oral health in older patients with oropharyngeal dysphagia. Age and ageing, 43(1), 132-137.
[20] Gil-Montoya JA, Ferreira de Mello AL, Barrios R, Gonzalez-Moles MA & Bravo M. 2015. Oral health in the elderly patient and its impact on general well-being: a nonsystematic review. Clinical interventions in aging, 461-467.
[21] Einhorn OM, Georgiou K & Tompa A. 2020. Salivary dysfunction caused by medication usage. Physiology International, 107(2), 195-208.
[22] Kakkar M, de Souza Valentim EC, Barmak AB & Arany S. 2023. Potential association of anticholinergic medication intake and caries experience in young adults with xerostomia. Journal of Dental Sciences, 18(4), 1693-1698.
[23] Thomson WM, Spencer AJ, Slade GD & Chalmers JM. 2002. Is medication a risk factor for dental caries among older people? Evidence from a longitudinal study in South Australia. Community dentistry and oral epidemiology, 30(3), 224-232.
[24] Yazdanian M, Armoon B, Noroozi A, Mohammadi R, Bayat AH, Ahounbar E & Hemmat M. 2020. Dental caries and periodontal disease among people who use drugs: a systematic review and meta-analysis. BMC oral health, 20, 1-18.

caries, likely due to reduced saliva production and the high sugar and acid content found in many alcoholic beverages.[25] Patients who exhibit one or both habits should be classified as moderate risk; otherwise, they are considered low risk.

B. Contributing Factors

Exposure to fluoride:

Fluoride exposure can come from several sources, such as using home water filters, consuming commercially bottled water, and brushing with fluoride toothpaste.

I. Water filter at home

Some water filters, such as reverse osmosis and distillation systems, can remove fluoride from tap water, reducing a key source of systemic fluoride. According to data from the National Health and Nutrition Examination Survey (NHANES) 2007-2010, 33.7% of U.S. adults use water treatment devices, including carbon filters, reverse osmosis systems, and water filter pitchers.[26] Without alternative fluoride sources, individuals using water filters, especially those with dry mouth or high sugar intake, may face an increased risk of caries. Therefore, patients who use a water filter at home should be classified as high risk, whereas those without one should be considered low risk.

II. Drinking from commercially bottled water

The increasing reliance on bottled water raises concerns about reduced access to the protective benefits of community water fluoridation. A study in Indianapolis found that only 2 out of 92 bottled water brands contained fluoride levels comparable to those in fluoridated municipal water, potentially undermining public efforts to promote oral health.[27] In CRA, low fluoride intake is considered a risk factor. Individuals who primarily consume bottled water, especially children or those at high risk, may have

[25] FDI World Dental Federation. 2023. Alcohol as a Risk for Oral Health. Int Dent J. 2024 Feb;74(1):165-166. doi: 10.1016/j. *International Dental Journal*.10.008. PMID: 38218599; PMCID: PMC10829357.
[26] Rosinger AY, Herrick KA, Wutich AY, Yoder JS & Ogden CL. 2018. Disparities in plain, tap and bottled water consumption among US adults: National Health and Nutrition Examination Survey (NHANES) 2007–2014. Public health nutrition, 21(8), 1455-1464.
[27] Almejrad L, Levon JA, Soto-Rojas AE, Tang Q & Lippert F. 2020. An investigation into the potential anticaries benefits and contributions to mineral intake of bottled water. The Journal of the American Dental Association, 151(12), 924-934.

insufficient fluoride exposure, which increases their risk of dental caries. Therefore, patients who regularly consume commercially bottled water should be classified as high risk, whereas those who do not should be considered low risk.

III. Fluoride toothpaste

Regular use of fluoride toothpaste is recognised as a protective factor, as it promotes the remineralisation of enamel and helps prevent demineralisation, effectively lowering the risk of dental caries. Patients using toothpaste containing 1000–1459 ppm fluoride are categorised as low risk. Those using toothpaste with less than 500 ppm fluoride should be considered at moderate risk, whereas patients who do not use fluoride toothpaste should be classified as high risk.

IV. Sugary foods or drinks (including juices, carbonated or non-carbonated soft drinks, energy drinks, syrup medicines)

The frequency of sugar consumption plays a more significant role than the quantity in assessing caries risk. Regular snacking or sipping on sugary beverages throughout the day keeps the oral environment acidic, which increases the likelihood of demineralisation. Patients who consume sugary foods or drinks fewer than three times a day should be considered low risk, those consuming them three to five times a day should be at moderate risk, and those with more than five instances daily should be classified as high risk.

V. Caries experience of mother, caregiver and/or other siblings (for patients aged <14 years)

The CRA identifies family caries experience as a significant factor, recognizing that dental caries is a multifactorial disease influenced by both biological and behavioural elements. Children often adopt the oral health behaviours and reflect the dental conditions of their immediate family members. Research has shown that children whose mothers had untreated caries are 2.5 times more likely to develop caries themselves.[28] In the CRA, for patients under 14 years of age, the caries experience of mothers, caregivers, and/or siblings is evaluated based on when it occurred: caries

[28] Finlayson TL, Gupta A & Ramos-Gomez FJ. 2017. Prenatal maternal factors, intergenerational transmission of disease, and child oral health outcomes. Dental Clinics, 61(3), 483-518.

within the past 24 months indicates low risk, within 7 to 24 months suggests moderate risk, and within the past 6 months signifies high risk.

VI. Have a record of regular dental check-ups

CRA helps identify individuals at risk of developing caries, and regular check-ups ensure continuous monitoring and management. For instance, children who have regular dental check-ups were found to have a lower prevalence of dental caries and untreated dental caries.[29] Thus, if the patient regularly visits dental facilities, they should be considered low risk. On the other hand, patients who infrequently undergo oral examinations should be classified as moderate risk.

C. Oral Clinical Examination

I. Cavitated/non-cavitated (incipient) caries or fillings (proven through examination/radiography)

CRA is essential for identifying non-cavitated lesions early, allowing for preventive care that may reduce or eliminate the need for fillings. In cases involving cavitated caries or existing restorations, CRA supports informed decisions on appropriate restorative treatments and long-term care planning. Patients should be classified as low risk if they have had no new caries or fillings in the past 36 months, moderate risk if they have had 1–2 new caries or fillings, and high risk if they have had three or more within the same period.

II. Extraction due to caries within the last 36 months

Patients who have had an extraction due to caries within the last 36 months should be classified as high risk, as they are more prone to tooth extractions from untreated or advanced decay, particularly if preventive measures are not followed. In contrast, patients without such a condition should be classified as low risk.

[29] Qu X, Houser SH, Tian M, Zhang Q, Pan J & Zhang W. 2022. Effects of early preventive dental visits and its associations with dental caries experience: a cross-sectional study. BMC Oral Health, 22(1), 150.

III. Plaque on the surface of teeth

Patients who show no visible plaque on tooth surfaces should be indicated as low risk, whereas those with noticeable plaque buildup should be indicated as moderate risk.

IV. Tooth morphology that affects oral hygiene

Tooth morphology significantly impacts an individual's ability to maintain proper oral hygiene. Features such as deep fissures, crowded teeth, or defective enamel can make cleaning more challenging, leading to increased plaque accumulation and a higher risk of caries development. Patients with these features should be classified as moderate risk, while those without them are considered low risk.

V. One or more interproximal fillings

Patients with one or more interproximal fillings should be considered at moderate risk, whereas those without any fillings should be classified as low risk. Interproximal fillings often result from previous caries experience or the presence of contributing risk factors, such as poor interdental cleaning habits, tooth morphology that hinders effective cleaning, a high-sugar or high-acid diet, a history of previous restorations, and reduced salivary flow. These factors collectively increase the likelihood of plaque accumulation and caries development between teeth.

VI. Exposed tooth root surface

Exposed tooth root surfaces, often resulting from gingival recession, significantly increase the risk of developing root surface caries. This risk is further elevated by age-related factors such as reduced salivary gland function, generalised periodontitis leading to gum recession, and decreased motor skills, all of which can make maintaining proper oral hygiene more difficult.[30] Patients with periodontal disease, especially those with moderate to severe periodontitis, are more likely to develop caries compared to those without the condition.[31] In the CRA, patients with exposed

[30] Bolukbasi G & Dundar N. 2024. Oral health in older adults: current insights and tips. Journal of Gerontology and Geriatrics, 72, 96-107.
[31] Li Y, Xiang Y, Ren H, Zhang C, Hu Z, Leng W & Xia L. 2024. Association between periodontitis and dental caries: a systematic review and meta-analysis. Clinical Oral Investigations, 28(6), 306.

root surfaces should be classified as moderate risk, whereas those without are considered low risk.

VII. Fillings with overhangs/open margins; open contacts with impacted food.

Overhanging fillings contribute to increased plaque accumulation, gingival inflammation, and interproximal caries, while open margins are a common cause of recurrent caries, often remaining undetected until significant damage occurs beneath the fillings. Additionally, open contacts that allow food impaction increase the risk of localised interproximal caries and periodontal pocket formation. Patients with these conditions should be classified as moderate risk, whereas those without these conditions are considered low risk.

VIII. Dental/orthodontic appliances (fixed or removable)

These appliances increase caries risk by creating plaque-retentive areas around brackets, clasps, or aligners, leading to white spot lesions and interproximal caries. They hinder effective cleaning, especially interproximal and gingival margins. Poorly fitting margins can allow bacteria to accumulate through microleakage, and some appliances reduce saliva flow to certain areas, limiting its protective effects. Patients who use these appliances should be categorised as moderate risk, whereas patients without them are considered low risk.

IX. Severe dry mouth (Xerostomia)

Xerostomia significantly disrupts the oral environment and greatly increases the risk of dental caries, particularly root caries, rampant decay, and recurrent lesions. It can be caused by factors such as medications such as antihypertensives, antidepressants, and antihistamines, radiation therapy to the head and neck, autoimmune conditions like Sjögren’s syndrome, as well as dehydration, diabetes, ageing, and other systemic health issues. Patients with xerostomia should be classified as high risk, whereas those without this condition are considered low risk.

5.1.2 Plaque Score

Dental plaque is a collection of bacteria and it is colourless, formed and bound to the surface of the teeth, tongue, dentures and strategic places such as margin of fillings, crowns and between the teeth. Plaque is often mistaken as food residues. Select the appropriate option for the patient and follow the supplier's instructions.

Dental plaque is a dense, non-mineralised, highly organised complex mass of bacterial colonies in a gel-like inter-microbial matrix. It adheres firmly to the acquired pellicles and also to the teeth, restoration and appliances in the mouth. Acquired pellicle forms immediately after the teeth are cleaned and it is composed primarily of glycoproteins from the saliva. Dental plaque is an important aetiology for dental caries and periodontal diseases. Thus, dental plaque needs to be controlled; the maintenance of which has to be continuous and involves daily commitment over lifetime.

Dental plaque is difficult to see with the naked eyes. However, plaque-containing areas of oral cavity can be detected using disclosing solution. A disclosing agent causes staining of bacterial plaque that can aid patients to develop an efficient system of plaque removal**.**

Several plaque indices have been developed to be either research tools or to be used in the clinic to monitor the oral hygiene of the patients. One of the indices is the Plaque Control Record. Plaque Control Record (PCR) by O'Leary, 1972 is widely used, a simple method for monitoring plaque control and guiding improvements in oral hygiene.[32] It gives both the patient and the oral health professional a clear picture of how well plaque is being controlled, with the goal of improving oral health and preventing periodontal disease. This document adopted Plaque Control Record as a tool for oral examination.

[32] O'Leary TJ. 1972. The Plaque Control Record. J. Periodontol., 43, 38.

The main purpose of the Plaque Control Record is to assess the presence of plaque on individual teeth. It gives a numerical score that reflects the amount of plaque on a patient's teeth and can be used to guide treatment plans and follow-ups. This index also provides sufficient information for patient education.

Procedure:

- For this test, the plaque will be disclosed using a two-tone disclosing agent. The great advantage of two-tone effect is that it can differentiate a new and matured plaque. The presence (+) or absence (-) of plaque is recorded in a chart, and the plaque incidence in the oral cavity was expressed as a percentage (%).
- The dentist will mark a specific area of each tooth surface (usually four surfaces: mesial, distal, buccal, and lingual)
- The surfaces are examined with a periodontal probe, which can detect the presence of plaque more effectively than the naked eye alone.

Scoring:

- Plaque Present: If plaque is visible, the surface is marked as positive, usually with a “1” or simply a checkmark.
- Plaque Absent: If no plaque is visible, the surface is marked as negative, usually with a “0.”
- The number of surfaces with plaque is counted and then divided by the total number of surfaces assessed, giving a percentage of surfaces with plaque.

Interpretation:

- The percentage of plaque-positive surfaces provides a numeric value that reflects the patient's plaque control. A high percentage indicates poor plaque control, while a low percentage suggests effective plaque removal.
- For example, if 7 out of 28 surfaces show plaque, the PCR would be 25%, indicating that 25% of the assessed surfaces have plaque.

Application:

- The Plaque Control Record is a useful tool in patient education. It helps patients understand the areas they might be neglecting during brushing and can motivate them to improve their oral hygiene habits.

- It also helps in tracking progress over time. After implementing a plaque control (like regular brushing and flossing), the PCR can be repeated to measure improvement.
- The form for recording the plaque score can be found in **Appendix 9**.

Limitations:

- It also doesn't consider the overall health of the gums or the presence of bleeding, which are important aspects of periodontal health.

Table 5.2: Types of plaque disclosing agents in DPHSU

Types	Instructions
Plaque disclosing tablet	Ask the patient to chew a tablet and let it mix with the saliva in the mouth, then swish the saliva around for about 30 seconds and spit it out. Then, calculate and record the percentage of the coloured areas in the PS[UPPKA.2022] form. Remove the coloured areas by brushing and flossing. Calculate and record the percentage of the coloured areas in PS[UPPKA.2022].
Plaque disclosing pellets	Use the swabs to wipe the surfaces of the patient's teeth. Then, calculate and record the percentage of the coloured areas. Remove the coloured areas by brushing and flossing. Calculate and record the percentage of the coloured areas in the PS[UPPKA.2022] form.
Plaque disclosing solution	Ask the patient to swish the solution around in the mouth for about 30 seconds and spit it out. Then, calculate and record the percentage of the coloured areas in the PS[UPPKA.2022] form. Remove the coloured areas by brushing and flossing. Calculate and record the percentage of the coloured areas in PS[UPPKA.2022].

5.1.3 Saliva Test

Saliva test can be used to educate patients, assist in preventive treatment planning and properly select dental materials to initiate changes in the patient's oral hygiene. It plays a significant role in maintaining oral health. It identifies, measures and assesses the patient's saliva condition, which helps determine the caries risk of the patient. The test consists of six steps.

Step 1: Resting Saliva (Hydration)

a) Visually assess the lower lip labial secretion.
b) Evert the lower lip, gently blot the labial mucosa with the small piece of gauze and observe the mucosa under good light.

c) Droplets of saliva will form at the orifices of the minor glands.
d) If the time taken for this to occur is greater than 60 seconds, the resting flow rate is below normal.

Step 2: Resting Saliva (Viscosity)

Visually assess the resting salivary consistency in the oral cavity:

- Sticky frothy saliva: residues
- Frothy bubbly saliva: increased viscosity
- Watery clear saliva: normal viscosity

Step 3: Resting Saliva (pH)

- Instruct the patient to expectorate (spit) any pooled saliva into the collection cup.
- Take the enclosed pH strip, place one end of it into the sample of resting saliva for 10 seconds and then check the colour of the strip (be sure to save the other end of the pH strip for step 5).
- Highly acidic saliva will be in the red section, pH 5.0 - 5.8.
- Moderately acidic saliva will be found in the yellow section, pH 6.0 - 6.6.
- Healthy saliva will be in the green section pH 6.8 - 7.8.

Step 4: Stimulated Saliva (Quantity)

- Ask the patient to chew the supplied piece of wax.
- After 30 seconds, ask the patient to expectorate (spit) into the collection cup.
- Patient should then continue chewing the wax for an additional 5 minutes, expectorating every 15 - 20 seconds in the cup provided. It is preferred that the operator leave the patient alone in the room while they collect saliva.
- Measure the volume of liquid in the cup excluding froth and record the result. Keep saliva for Steps 5 and 6.

Step 5: Stimulated Saliva (pH)

- Take the pH test strip and place the unused end into the sample of saliva for 10 seconds and then check the colour of the strip. This should be compared with the chart in Step 3.
- Highly acidic saliva will be in the red section, pH 5.0 - 5.8.

- Moderately acidic saliva will be found in the yellow section, pH 6.0 - 6.6.
- Healthy saliva will be in the green section, pH 6.8 - 7.8.

Step 6: Stimulated Saliva (Buffering Capacity – Quality)

- Open the buffer test foil pack. Use the pipette to draw up some saliva from the cup.
- Dispense 1 drop from the cup onto each of the 3 test pads.
- Turn the test strip on its side to drain excess saliva onto a tissue.
- After 2 minutes, compare the colour of each pad, total the 3 scores and record the buffering ability. Refer to **Table 5.3** as a guide.

Table 5.3: Scoring of stimulated saliva (buffering capacity-quality)

Points of the respective colours	Buffering Ability
Green = 4 points Green/Blue = 3 points Blue = 2 points Blue/Red = 1 point Red = 0 point	0-5 = very low 6-9 = low 10-12 = normal

Record the all the result in the RK[UPPKA.2022] under Bahagian III, Ujian Resting Saliva dan Ujian Stimulated Saliva, **Appendix 10.**

Table 5.4 Saliva Test Results and Recommended Management

Test	Result	Clinical Interpretation	Recommended Management
Resting Saliva Test			
A. Hydration	Low	▪ Dehydration or gland dysfunction ▪ Commonly associated with hyposalivation and xerostomia which may result in rampant dental caries, oral fungal infections, difficulty in swallowing and/or speaking, taste changes, difficulty in wearing dentures, halitosis, or burning mouth	▪ Patient education - reinforce the importance of regular oral care and proper hydration ▪ Obtain thorough medical history: • Health conditions such as hypertension, asthma, diabetes mellitus, haematological diseases, thyroid diseases, rheumatic diseases, psychiatric diseases, and eating disorders, Sjögren's syndrome, head and neck radiotherapy • Medication such as anticoagulants, antidepressants, antihypertensives, antiretrovirals, hypoglycaemics, levothyroxine, multivitamins and supplements, non-steroidal anti-inflammatory drugs, and steroid inhalers ▪ Strategies to reduce symptoms/increase salivary flow: • Increase fluid intake • Use of saliva substitutes • Use of dry mouth sprays to help moisten the oral cavity and alleviate dryness • Avoid alcohol-containing mouthwashes, tobacco, and caffeinated beverages • Recommend humidifier use, especially at night • Referral to the Oral Pathology and Oral Medicine (OPOM) specialty or other relevant specialties: • Unexplained persistent hyposalivation • Suspected autoimmune or systemic disorder • Severe mucosal changes or unresponsive symptoms
B. Viscosity	High	▪ Reduced flow or altered composition ▪ Commonly associated with hyposalivation and xerostomia which may result in rampant dental caries, oral fungal infections, difficulty in swallowing and/or speaking, taste changes, difficulty in wearing dentures, halitosis, or burning mouth	
C. pH	Low pH	▪ Acidity ▪ Increased susceptibility to dental caries, enamel erosion, and oral fungal infections	▪ Patient education - reinforce the importance of regular oral care ▪ Strategies to help neutralise acids in the mouth: • Improve saliva flow by increasing fluid intake and using saliva stimulants e.g. sugar-free gum or lozenges • Limit acidic and cariogenic foods and drinks e.g. soft drinks,

			caffeinated beverages, alcohol, energy drinks • Use pH-neutral mouth rinses/dry mouth gel ▪ Topical fluoride applications ▪ Frequent dental visits (i.e., every 3–4 months)
Stimulated Saliva Test			
A. Quantity	Low	▪ Hyposalivation	▪ Patient education - reinforce the importance of regular oral care and proper hydration ▪ Obtain thorough medical history: • Health conditions such as hypertension, asthma, diabetes mellitus, haematological diseases, thyroid diseases, rheumatic diseases, psychiatric diseases, and eating disorders, Sjögren's syndrome, head and neck radiotherapy • Medication such as anticoagulants, antidepressants, antihypertensives, antiretrovirals, hypoglycaemics, levothyroxine, multivitamins and supplements, non-steroidal anti-inflammatory drugs, and steroid inhalers ▪ Strategies to reduce symptoms/increase salivary flow: • Increase fluid intake • Use of saliva substitutes • Use of dry mouth sprays to help moisten the oral cavity and alleviate dryness • Avoid alcohol-containing mouthwashes, tobacco, and caffeinated beverages • Recommend humidifier use, especially at night • Referral to the Oral Pathology and Oral Medicine (OPOM) specialty or other relevant specialties: • Unexplained persistent hyposalivation • Suspected autoimmune or systemic disorder • Severe mucosal changes or unresponsive symptoms
B. Buffering Capacity	Low	Poor acid neutralisation leading to: ▪ Rapid demineralisation ▪ Higher risk of dental caries dan erosion	▪ Patient education - reinforce the importance of regular oral care ▪ Strategies to help neutralise acids in the mouth: • Improve saliva flow by increasing fluid intake and using saliva

		▪ Poor response to conventional preventive care	stimulants e.g. sugar-free gum or lozenges • Limit acidic and cariogenic foods and drinks e.g. soft drinks, caffeinated beverages, alcohol, energy drinks • Use pH-neutral mouth rinses/gel ▪ Topical fluoride applications ▪ Frequent dental visits (i.e., every 3–4 months)

5.1.4 Smoking Assessment

For smoking assessment, officers utilise a carbon monoxide analyser and cotinine saliva test (e-cigarette user) to assess patients' smoking habits. Please adhere to the instructions provided by the device supplier. Record all the results in the Borang Berhenti Merokok T4-TC [UPPKA.2022] **(Appendix 11)** and LP.8 Pin.8/2019.

5.1.5 Dental Anxiety Assessment

Dental anxiety, also known as dental fear or dentophobia, refers to the apprehension or fear associated with visiting the dentist or undergoing dental procedures. This condition affects a significant portion of the population; approximately 36% experience some level of dental anxiety, with an additional 12% suffering from extreme dental fear. Recognising and addressing dental anxiety is crucial for maintaining oral health.[33] There are two (2) assessment tools for measuring dental anxiety as follows:

i. Malay-Modified Child Dental Anxiety Scale (age 4-16)

The Malay-Modified Child Dental Anxiety Scale (Malay-MCDAS) is a tool used to assess dental anxiety specifically in children.[34] The Malay-MCDAS typically includes a series of questions or statements related to dental anxiety, which are scored based on the child's response **(Appendix 12)**. These questions may inquire about the child's feelings or fears related to dental visits, procedures, or dental professionals. The scale helps dental professionals gauge the level of

[33] Beaton L, Freeman R & Humphris G. 2014. Why are people afraid of the dentist? Observations and explanations. *Medical Principles and Practice*; 23(4): 295-301.
[34] Esa R, Hashim NA, Ayob Y & Yusof ZYM. 2015. Psychometric properties of the faces version of the Malay-modified child dental anxiety scale; Psychometric properties of the faces version of the Malay-modified child dental anxiety scale. *BMC Oral Health*; 15: 1-8.

anxiety a child may experience during dental treatment, allowing them to tailor their approach accordingly to provide a more comfortable experience.

ii. Modified Dental Anxiety Scale (age 16 years and above)
Modified Dental Anxiety Scale (MDAS), which is a commonly used tool to assess dental anxiety in patients **(Appendix 13)**. It consists of a brief questionnaire with five questions related to dental anxiety.[35]

5.1.6 Oral Cancer Screening

Oral cancer is a significant health concern in Malaysia, with a notable number of cases detected annually. Early detection through regular screenings is crucial for effective treatment and improved survival rates. In the L.P.8-1 PIN.8/2019 or L.P.8-2 PIN.8/2019, details about tobacco, betel quid, and alcohol use are documented to assess risk factors associated with oral cancer in Bahagian G.

Besides that, observations from the oral examination, such as the presence of lesions or abnormalities, is documented in Bahagian F*,* L.P.8-1 PIN.8/2019 or L.P.8-2 PIN.8/2019. For oral cancer screening, Guidelines Primary Prevention and Early Detection of Oral Potentially Malignant Disorders and Oral Cancers outlines the recommended procedures.[36] If the oral cancer screening has already been conducted at the primary dental clinic, the screening procedures are not compulsory to be repeated at DPHSU.

5.1.7 Oral Health Literacy

Health literacy refers to an individual's capacity to comprehend information provided on prescriptions, appointment cards, health education materials, medical directives, and consent forms.[37] Individuals with low health literacy are more likely to misinterpret medication instructions and warning labels, particularly when the regimen involves complex processes such as titration or tapering. Such misunderstandings can lead to

[35] Humphris GM, Morrison T & Lindsay SJ. 1995. The Modified Dental Anxiety Scale: validation and United Kingdom norms. *Community Dental Health*;12(3):143-50.
[36] Oral Health Programme, Ministry of Health Malaysia. 2018. Guidelines Primary Prevention and Early Detection of Oral Potentially Malignant Disorders and Oral Cancers, MOH/K/GIG/2.2018(GU)
[37] Nutbeam D. 2008. The evolving concept of health literacy. Social Science & Medicine, 67(12), 2072–2078. https://doi.org/10.1016/j.socscimed.2008.09.050

incorrect dosing and potentially harmful health outcomes.[38] The World Health Organization (WHO) also emphasises that health literacy involves the ability to access, comprehend, evaluate, and apply health information effectively to make informed decisions about one's health. The WHO also emphasises that health literacy involves the ability to access, comprehend, evaluate, and apply health information effectively to make informed decisions about one's health. This document utilises the Oral Health Literacy Questionnaire (OHLS-M-Q18) **(Appendix 14).** This questionnaire assesses an individual's ability to understand, evaluate, and apply oral health-related information and services. There are three domains namely Healthcare (item 1-6), Disease Prevention (item 7-12) and Health Promotion (item 13-18). It covers areas that reflect various dimensions of oral health literacy, including:

i. Understanding and Following Instructions
   • Ability to comprehend medication guidelines and emergency steps after dental procedures.
   • Understanding health messages from dentists, family, friends, and the media
ii. Evaluating and Applying Information
   • Capacity to assess the relevance and applicability of advice from dental professionals.
   • Awareness of when to seek a second opinion or further treatment.
   • Ability to judge the need for and benefits of dental screenings (e.g., for oral cancer, gum disease).
iii. Access and Navigation of Care
   • Ease of obtaining timely dental care in emergencies.
   • Knowledge about where and how to access preventive services and information.
iv. Preventive Oral Health Behaviour
   • Skills in finding and using information to prevent tooth decay and gum disease.
   • Understanding the impact of unhealthy habits (e.g., smoking, sugar intake, poor oral hygiene).

[38] Institute for Safe Medication Practices. 2023. Patients with low health literacy make more errors interpreting medication instructions [PDF]. Retrieved from https://www.ismp.org/sites/default/files/newsletter-issues/20231130.pdf

v. Environmental and Social Influences

• Awareness of how living conditions (e.g., access to clean water, proximity to clinics) and home facilities affect oral health.

• Willingness and ability to take part in community-based oral health programmes.

vi. Decision-Making and Empowerment

• Confidence in making informed choices to improve personal oral health and overall well-being.

Based on their literacy level, different focus areas are addressed, such as understanding dental instructions, navigating services, and making informed decisions about oral care. Tailored interventions are then implemented to match the patient's literacy level, ensuring they receive the appropriate support and guidance to improve their oral health. **Table 5.5** below shows Oral Health Literacy Level, Focus Area and Intervention.

Table 5.5 Oral Health Literacy Level, Focus Area and Intervention

Literacy Level	Focus Area	Interventions
Limited	Basic Understanding & Navigation	- Use simple, visual aids (e.g., diagrams, models) - Provide verbal explanations with teach-back method - Translate materials into native language - Offer one-on-one counselling- Use pictorial medication instructions
	Access to Care	- Assist with appointment scheduling - Provide transportation support or directions - Use health navigators or dental social workers
	Behavioural Change	- Demonstrate brushing/flossing techniques - Use reminder cards/posters for hygiene habits
Sufficient	Enhancing Understanding & Decision-Making	- Offer interactive educational workshops - Provide printed materials with moderate complexity

		- Introduce group sessions on oral hygiene & nutrition - Support with translated videos or tutorials
	Encouraging Preventive Practices	- Promote regular check-ups with motivational interviewing - Encourage participation in community oral health events
	Access & Empowerment	- Teach how to navigate the healthcare system - Encourage asking questions during dental visits
Excellent	Self-Management & Empowerment	- Introduce advanced oral health apps/tools - Promote evidence-based self-care practices - Involve in peer education programmes
	Community Engagement	- Engage as oral health ambassadors - Support community outreach or school education programmes
	Informed Decision-Making	- Provide detailed decision aids for treatment options - Encourage shared decision-making with dental professionals

These interventions are tailored based on the patient's level of oral health literacy. However, to ensure a more personalised approach, practitioners may refer to the particular domain with limited OHLS-M-Q18 level.

5.2 Treatment Plan

A comprehensive outline of the procedures and interventions recommended to address a patient's oral health needs and achieve specific treatment goals. It is developed based on the findings of the dental diagnosis and tailored to meet the individual needs and preferences of the patient. A well-designed treatment plan ensures that dental care is provided in a systematic and organised manner, addressing both immediate concerns and long-term oral health objectives.

If a patient requires treatment, the treatment plan should include detailed information covering the following aspects:

i. Type and purpose of treatment

- Type: Specify the type of treatment (caries management, smoking cessation etc)
- Purpose: Explain why this treatment is necessary. This could be to cure a disease, alleviate symptoms, prevent complications, or improve the quality of life.

ii. Risks of treatment

- Medical risks: Potential side effects, complications, or adverse reactions associated with the treatment.
- Procedural risks: Risks involved in the procedure itself, if applicable (e.g., risks of infection, bleeding).

iii. Risks of not receiving treatment

- Progression of disease: Possible worsening of the condition if left untreated.
- Complications: Potential complications that may arise from not undergoing treatment.
- Quality of life: Impact on the patient’s overall well-being and daily functioning.

iv. Benefits

- Symptom relief: How the treatment will alleviate symptoms.
- Disease management: Control or cure of the condition.
- Improvement in quality of life: Enhancement in the patient's ability to perform daily activities and overall well-being.

v. Sequelae

- Immediate sequelae: Immediate aftereffects of the treatment
- Long-term sequelae: Potential long-term effects or permanent changes resulting from the treatment.

vi. Constraints

- Physical constraints: Patient's physical limitations that may affect the treatment process.
- Medical history: Pre-existing conditions that may influence treatment choices including intellectual and mental disabilities.
- Lifestyle factors: How the treatment may impact the patient's lifestyle.

viii. Alternative treatments

- Options: Other treatment modalities that could be considered (e.g., different medications, non-invasive procedures, lifestyle changes).
- Comparative effectiveness: How these alternatives compare in terms of effectiveness and risk.

ix. Costs involved

- Direct costs: Expenses directly related to the treatment (e.g. treatment fees, medication costs).
- Indirect costs: Additional costs such as transportation, lost wages due to time off work, etc.
- Insurance coverage (if applicable): Information on what parts of the treatment may be covered by the patient's insurance plan.

Record all treatment plans in the LP8 card.

5.3 Behaviour Change Intervention

Behaviour changes interventions for high-risk individuals and their families aim to support the internalisation of healthy oral health practices. Activities within the DPHSU encompass the following areas:

a. Oral Health Education
b. Diet Counselling
c. High Risk Habits
    - smoking cessation activity
    - betel quid chewing cessation
    - alcohol abstinence
d. Dental Anxiety
e. Motivational Interviewing

5.3.1 Oral Health Education

Oral health education is crucial for maintaining overall health and preventing various diseases. It is increasingly recognised as an essential component of oral and general health education. Educating patients and their families about oral health is vital for adherence to treatment regimens and improving health outcomes.[39]

Oral health education can be delivered effectively in DPHSU using various methods depending on the target audience such as:

i. Personal counselling and dental educational talk: Offering one-on-one consultations to patients about oral hygiene practices, diet and preventive care based on individual needs, conditions, and lifestyles.
ii. Printed and digital materials: Promoting oral health education using flipcharts, brochures and digital materials such as videos and articles that provide clear information on dental care, and prevention strategies.
iii. Basic oral hygiene practices: Educating patients on proper tooth brushing techniques, the importance of flossing and topical fluoride application.

[39] Souza KN & Bibiano RNS. 2023. The importance of education for oral health awareness. *Health and Society*. 2023;3(05):259–277.

The content for oral health education should be tailored to the needs of the specific audience, whether it is children, young adults, adults, pregnant women, patients at maintenance phase, the elderly or those with special needs. These are the oral health education topics that can be delivered to patients:

i. Basic oral health knowledge: Empower the patients' knowledge about basic dental anatomy including the structure, function of the teeth and gum, and educate patients about common dental diseases (such as caries, gingivitis and oral cancer) to help them recognize the importance of preventive care.
ii. Importance of oral health: Explain how oral health is linked to overall health and how oral health affects daily activities like eating, speaking, and social interactions.
iii. Basic oral hygiene practices: Educate on proper tooth brushing techniques using fluoride toothpaste, flossing and the importance of regular dental visits.
iv. Diet and nutrition: Explain the relationship between sugar consumption and tooth decay by encouraging a balanced diet, low in sugary foods and drinks. Promote foods that are good for teeth, such as dairy products, leafy greens, and crunchy fruits and vegetables.
v. Use of fluoride: Advocate for the use of fluoride toothpaste as an effective measure to prevent tooth decay and provide information on the benefits of community water fluoridation where applicable.
vi. High risk habits (smoking, betel quid chewing and alcohol consumption): Educate on the negative effects of high-risk habits, including increasing the risk of oral cancer.
vii. Engagement and motivation: Use engaging methods such as demonstrations, models, and interactive content to teach proper techniques and encourage positive behaviour changes through goal setting, self-monitoring, and reinforcement.

5.3.2 Diet Counselling

The relationship between dietary practices and dental caries has been suggested and reinforced since classic studies conducted in the 1950s.[40,41,42] In the last 10 years, evidence has demonstrated that dietary practices, particularly the consumption of free sugars, are of critical importance to the development of dental caries, constituting the necessary cause of its occurrence, and modulating other factors, such as dental biofilm.[43,44,45]

Other studies have highlighted that there was a bidirectional association between periodontal disease and diabetes mellitus.[46] On the other hand, dental caries is also a part of the oral disease that can be acquired based on one's unhealthy eating habits and lifestyle.[47] The frequency of eating carbohydrates and sugary food alongside poor oral habits can increase the prevalence of dental caries. There are positive associations between free sugar intake and dental caries detected in all ages.[47]

This document is designed to support the effective implementation of diet counselling in DPHSU, ensuring alignment with the Malaysian Dietary Guidelines 2020 and the National Plan of Action for Nutrition of Malaysia III 2016-2025.[48] Strategies involved are:

i. Teaching and guiding patients and guardians in making a healthier choice through food and lifestyle according to 14 key messages in Malaysian Dietary Guidelines 2020.[47]
ii. Periodic monitoring of a patient's diet through systematic record keeping and close observation during appointments using either 24-hour diet recall form

[40] Gustafsson BE, Quensel CE, Lanke LS, Lundqvist C, Grahnén H, Bonow BE & Krasse BO. 1953. The effect of different levels of carbohydrate intake on caries activity in 436 individuals observed for five years. *Acta Odontologica Scandinavica*; 11(3-4): 232–364.
[41] Weiss RL & Trithart AH. 1960. Between-meal eating habits and dental caries experience in preschool children. *American Journal of Public Health and the Nations Health*; 50(8): 1097-1104.
[42] Sullivan HR & Worthy NEG. 2015. Review and correlation of the data presented in papers 1–6. *Australian Dental Journal*; 3(6): 395–398.
[43] World Health Organization. 2015. WHO Guideline: Sugars intake for adults and children. *WHO Library Cataloguing-in-Publication Data*; 26(4): 34–36.
[44] Sheiham A & James WPT. 2015. Diet and Dental Caries: The pivotal role of free sugars reemphasized. *Journal of Dental Research*; 94(10): 1341–1437.
[45] Peres MA, Sheiham A, Liu P, Demarco FF, Silva AE, Assunçao MC, Menezes AM, Barros FC & Peres KG. 2016. Sugar consumption and changes in dental caries from childhood to adolescence. *Journal of Dental Research*; 95(4), 388-394.
[46] Stohr J, Barbaresko J, Neuenschwander M & Schlesinger S. 2021. Bidirectional association between periodontal disease and diabetes mellitus: a systematic review and meta-analysis of cohort studies. *Scientific Reports 2021*; 11(1): 1–9.
[47] National Coordinating Committee on Food and Nutrition, Ministry of Health Malaysia. 2021. Malaysian Dietary Guidelines 2020.
[48] National Coordinating Committee on Food and Nutrition (NCCFN), Ministry of Health Malaysia. National Plan of Action for Nutrition of Malaysia III 2016–2025

DP[UPPKA.2024] (**Appendix 15)** or using MyNutridiari 2 Application (**Appendix 16**)

iii. Adapting 5As behaviour modification technique for diet counselling in dental practice.[49,50,51]

The relationship between sugar consumption and the development of caries is not straightforward. Frequency of intake, timing, sequencing, drinking style and the length of exposure all modify the cariogenicity of sugar intakes.[52] Historical data also suggest a dose-response relationship where increased sugar availability correlates with higher caries rates. The relationship can be linear, log-linear, or negligible depending on fluoride use and other factors. The frequency of sugar intake may have a greater impact on caries than the total amount consumed. A high frequency of sugary snacks between meals increases caries risk more than large amounts consumed in main meals.[53]

The WHO recommends limiting free sugar intake throughout life. For both adults and children, WHO strongly recommends reducing free sugar consumption to less than 10% of total energy intake. This supports the idea that limiting sugar consumption accordingly with recommended daily calorie intake can effectively reduce the risk of developing caries.[54]

In 2015, WHO conditionally suggests further reduction to below 5% of total energy intake. A “strong recommendation” indicates that the benefits clearly outweigh any potential downsides and can be widely adopted as policy. A “conditional recommendation” suggests less certainty about the balance of benefits. and risks, thus requiring careful consideration and stakeholder involvement before implementation.[55]

[49] Schlair S & Jay M. 2012. How to deliver high quality obesity counseling using the 5As framework. *Journal of Clinical Outcomes Management*; 19(5): 221-229.
[50] Jay M, Gillespie C, Schlair S, Sherman S & Kalet A. 2010. Physicians’ use of the 5As in counselling obese patients: Is the quality of counseling associated with patients’ motivation and intention to lose weight? *BMC Health Services Research*; 10(1): 1–10.
[51] Sherson EA, Jimenez EY & Katalanos N. 2014. A review of the use of the 5 A’s model for weight loss counselling: differences between physician practice and patient demand. *Family Practice*; 31(4): 389–398.
[52] Touger-Decker R & van-Loveren C. 2003. Sugars and dental caries. *The American Journal of Clinical Nutrition*; 78(4): 881S-892S.
[53] Van-Loveren C. 2019. Sugar restriction for caries prevention: amount and frequency. Which is more important? *Caries Research*; 53(2): 168-175.
[54] Moynihan PJ & Kelly SA. 2014. Effect on caries of restricting sugars intake: systematic review to inform WHO guidelines. Journal of Dental Research; 93(1): 8-18.
[55] World Health Organization. 2015. WHO Guideline: Sugars intake for adults and children. WHO Library Cataloguing-in-Publication Data; 26(4): 34–36.

This document supports the view that regulating sugar intake in line with daily calorie requirements can significantly reduce caries risk. Recommended sugar intake may vary based on age, gender, and activity level due to difference in caloric needs. The table below shows maximum free sugar intake recommendations for various groups, aligning with the Ministry of Health Malaysia's *Recommended Nutrient Intakes (RNI) 2017.*[56] **Table 5.6** based on WHO's guidance.

Table 5.6: Suggested maximum sugar intake per day

Group	Total Energy Requirement (T.E.R.) (kcal/day)	Maximum Free Sugar Intake per day 10% from T.E.R.		Maximum Free Sugar Intake per day 5% from T.E.R.	
		kcal	grams	kcal	grams
Children					
1-3 years	900	90	22.5	45	11.3
4-6 years	1,380	138	34.5	69	17.3
7-9 years	1,610	161	40.3	80.5	20.1
Adolescent					
10-12 years	1,710	171	42.8	85.5	21.4
13-15 years	1,810	181	45.3	90.5	22.6
16-18 years	1,890	189	47.3	94.5	23.6
Adult and Elderly					
19-29 years (male)	2,240	224	56	112	28
19-29 years (female)	1,840	184	46	92	23
30-59 years (male)	2,190	219	54.8	109.5	27.4

[56] Vallis M, Piccinini–Vallis H, Sharma AM & Freedhoff Y. 2013. Modified 5 As: Minimal intervention for obesity counselling in primary care. Canadian Family Physician; 59(1): 27-31.

30-59 years (female)	1,900	190	47.5	95	23.8
≥ 60 years (male)	2,030	203	50.8	101.5	25.4
≥ 60 years (female)	1,770	177	44.3	88.5	22.1
Pregnant Women					
1st Trimester	1,920 – 1,940	192 - 194	48 - 48.5	96 – 97	24 – 24.3
2nd Trimester	2,120 – 2,140	212 - 214	53 - 53.5	106 – 107	26.5 – 26.3
3rd Trimester	2,310 – 2,330	231 - 233	57.8 - 58.3	115.5 - 116.5	28.9 – 29.1
Lactating Women					
1st 6 months	2,340 – 2,360	234 - 236	58.5-6	117 – 118	29.3 – 29.5
Athlete	Varies by activity level Higher energy needs due to increased physical activity, often exceeding 3,000 kcal/day for some individuals.				

Notes:

- Energy requirements for athletes vary significantly depending on their activity level, intensity, and duration. Their sugar intake should be calculated based on specific energy needs.
- The sugar intake values are calculated as 10% or 5% of the total energy requirement and converted to grams (1 gram of sugar provides 4 kcal).
- 5g is equal to 1 teaspoon of sugar. Based on patients' diet record, estimation of the amount of sugar intake per day can be obtained and compared with recommended intake.
- 1 table spoon is equal to 3 tea spoons of sugar.

Diet counselling is a crucial activity that should be provided to all patients attending DPHSU. One of the primary approaches in diet counselling involves the use of the 5R and modified 5A techniques. The flow chart of the diet counselling process is presented in **Figure 5.1**.

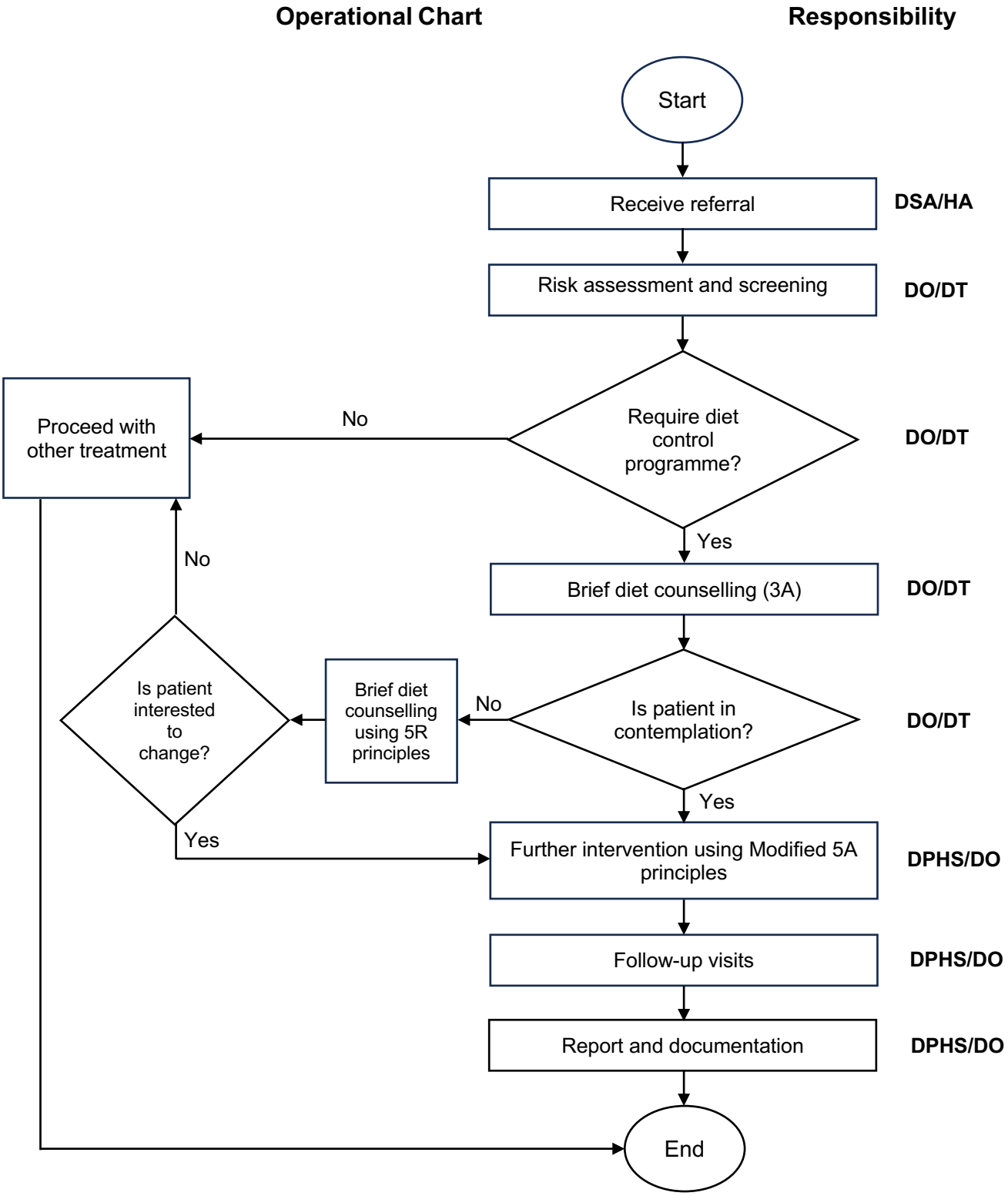

Figure 5.1: Diet counselling work process

Steps in diet counselling are as follows:

Step 1: Receive referral

- Evaluate referrals from any source to the DPHSU.
  (Record involved: Borang Rujukan Pesakit ke UPPKA (Lampiran DPHS1) **(Appendix 3)**

Step 2: First visit (risk assessment and screening)

- Perform assessment:
  - General health assessment, history taking and basic health screening (blood pressure level, weight, height and BMI)
  - 24-hour diet recall can be recorded in Diari Pemakanan DP[UPPKA.2024] (**Appendix 15**) and estimation of free sugar intake per day
  - Caries Risk Assessment
  - pH and buffer saliva test
  - Oral health screening
- Based on the above-mentioned assessment, identify high-risk dietary behaviours and health conditions. Screen for patients with:
  - High frequency of sugary food/drink intake (> 5 times per day)
  - BMI more than 25 kg/m^2
  - Abnormal pH saliva test reading (below 6.8)
  - Multiple caries lesions, sign of periodontal disease or halitosis
  - Other finding related to diet, for example, sign of erosions, multiple ulcers, dry mouth, tongue glossitis
- Log the status in PKD[UPPKA.2024] Form 1 & 2 **(Appendix 17)**

Step 3: Intervention (3A/Modified 5A/5R)

- Ask about diet, advise on risks, arrange follow-up if interested for further intervention.
- Start behavioural modification if possible. For non-contemplators, evoking counselling delivered using 5R principles (**Figure 5.2**).
- For patients in contemplation state, start behavioural modification intervention using Modified 5A to intensify patient's intention towards commitment on dietary

control (**Figure 5.3**).[55]

- In effort to assist them throughout the process, inform patients to record and monitor their daily food and drink intake using dietary monitoring tools (DP[UPPKA.2024] form or MyNutriDiari2 App).
- Inform patients to record their diet intake for four consecutive days; 2 days of weekday 2 days of weekend (to see if there's variation in working/school day in comparison to non-working/school day).

Step 4: Follow-up visits

- Review and assess diet logs.
- Repeat counselling using Modified 5A principles: Ask, Agree, Assess, Assist, Arrange.
- Include Malaysian Dietary Guidelines 2020 (14 Key Messages) for advice.[47]
- Ensure periodic monitoring and provide tailored follow-ups.
- Monitoring of the patient's progress using:
    - 24hour diet recall form DP[UPPKA.2024]
    - Digital application such as MyNutriDiari2 apps [57]
    - BMI score (PKD[UPPKA.2024] Form 1 & 2)
    - Plaque score (LP.8-1 Pin.8/2019 and PS[UPPKA.2022]

Step 5: Final visit (review and maintenance)

- Reassess dietary intake, health status, and oral health improvements.
- Patients' latest dietary intake log and compare their achievements or changes from previous:
    - Is the patient still on a high frequency of sugary food/drink intake (> 5 times per day)?
    - Estimation of the latest amount of sugar intake per day. Is it according to age?
    - Reassess any change in level of caries risk - whether increase or decrease risk?
    - Observe any improvement on pH level from previous reading. Is it going towards a neutral level?

[57] Rangan AM, O'Connor S, Giannelli V, Yap ML, Tang LM, Roy R, Louie JCY, Hebden L, Kay J & Allman-Farinelli M. 2015. Electronic Dietary Intake Assessment (e-DIA): comparison of a mobile phone digital entry app for dietary data collection with 24-hour dietary recalls. *JMIR mHealth and uHealth*; 3(4): e4613.

- General health assessment, history taking and basic health screening (blood pressure level, weight, BMI) - observe whether these achieved at the good level?
- Observe any improvement of oral condition, for example, is there decrease in periodontal pocketing depth, or any evidence of new caries emergence?
- Assess current level of knowledge using tools such as Oral Health Literacy Questionnaire (**Appendix 14**)

- Discuss progress, provide maintenance advice, or consider referrals if needed.

Step 6: Reporting

- Document all interventions, outcomes, and patient discussions in LP.8-1 Pin.8/201 and record in the online dental information system.

Relevance
Provide information about the relationship of food intake with oral and general health status.

Risk
Ask the patient to list out some of the risks to both oral and general health due to unhealthy eating habits. Operator can also help patients by listing out some of the risks that are detrimental to their health as a consequence to uncontrolled eating habits and proper monitoring of the type of food consumed.

Reward
Ask the patient about the rewards of eating healthy and adapting a healthy lifestyle to oral health, body health and overall well-being.

Roadblock
Inquire about patients' biggest roadblocks in maintaining a healthy lifestyle and eating healthy (e.g sugar craving, familial eating culture etc.).

Repetition
Constant encouragement and motivation need to be given to the patient in every visit to ensure positive behaviour modification.

Figure 5.2: 5R to evoke patient's awareness on importance of diet control

Ask
"Are you concerned about how your diet might be affecting your oral health or quality of life?" and "Would it be alright if we discussed your dietary habits?"

Assess
Evaluate the patient's oral health status, including any signs of dental caries, gum disease, and dietary habits contributing to poor oral health. Identify the "root causes" of oral health issues, such as high sugar intake, frequent acidic food/drink or low nutritious food intake such as vitamins and essential minerals for strong teeth and gum.

Advice
Give advice based on patient's oral health status focusing on balanced diet that beneficial to oral health especially preventing dental caries and promoting healthy gum tissues. Limiting sugar in diet, which not only reduce caries, but beneficial to overall health as avoiding obesity, diabetes and their complications. Using this advice, emphasize on requirement for a treatment plan to achieve the positive health impacts.

Agree
Before proceeding with dietary recommendations, it is crucial to obtain explicit agreement on the treatment plan. While healthcare providers can guide the process, the patient must be committed to making the necessary dietary and lifestyle changes for improved oral health.

Assist
Offer a clinical management plan (e.g., "Now that we understand your situation better, can I recommend some dietary adjustments to improve your oral health?"). Patients are generally more receptive to advice when it follows a thorough assessment and empathetic discussion.

Schedule follow-up visits to monitor progress, provide ongoing support, and make necessary adjustments to the dietary plan.

Figure 5.3: Modified 5A for diet counselling

5.3.3 High Risk Habits

For high-risk habits such as smoking, betel quid chewing, and excessive alcohol consumption, the following interventions can be carried out in the DPHSU:

a) Smoking cessation activity
b) Betel quid chewing cessation
c) Alcohol abstinence

a) Smoking Cessation Activity

About 70% of tobacco users visit physicians, and one-third of them are seeing dentists. Most cases referred for habit cessation are to support dental treatments like implants, bridges, and periodontal therapy, where success depends on an oral environment free from smoking. Without a clear strategy, smoking cessation efforts may fail. Poorly delivered methods by dental personnel can discourage patients from quitting.[58]

Smoking cessation activity involves either a non-pharmacological, pharmacological approach or a combination of these (**Table 5.7**). Combined therapy improves the chances of successful smoking cessation. Studies have shown that brief counselling paired with nicotine replacement therapy (NRT) is more effective than counselling alone, unless contraindicated.[59]

Table 5.7: Smoking cessation approach

Approach	Activity	Mode of intervention
Non-pharmacological	Counselling using 5A's or 5R's, STAR method, DEAD pointers etc.	Individual or by group counselling through face-to-face, phone or virtual sessions
Pharmacological	NRT	Therapy includes products like nicotine gum, patches, nicotine mouth sprays, lozenges, inhalers, etc.
	Non-NRT	Therapy includes medications like bupropion and varenicline.

[58] Fiore MC, Roberto Jaen C, Baker TB, Bailey WC, Bruce Christiansen FA & Curry SJ. 2008. A Clinical Practice Guideline for Treating Tobacco Use and Dependence: Update the Clinical Practice Guideline Treating Tobacco Use and Dependence 2008 Update Panel, Liaisons, and Staff* Partnership for Prevention (formerly with CDC). *American Journal of Preventive Medicine*; 35(2).

[59] Schmelzle J, Rosser WW & Birtwhistle R. 2008. Update on pharmacologic and nonpharmacologic therapies for smoking cessation. *Canadian Family Physician*; 54(7): 994-999.

The following flow chart illustrates the approach to smoking cessation in the DPHSU (**Figure 5.4**).

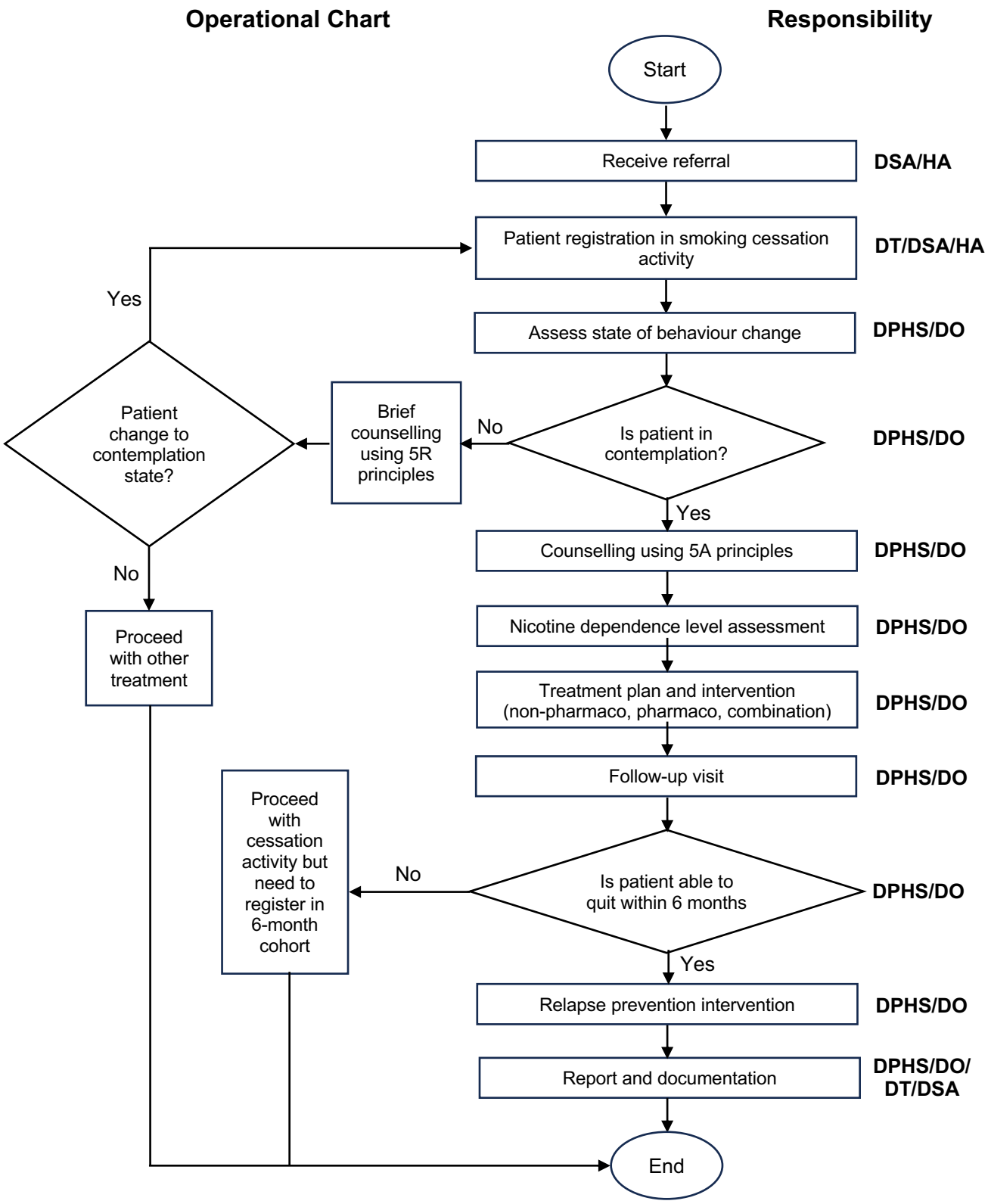

Figure 5.4: Smoking cessation approach in DPHSU

Steps in smoking cessation are as follows:

Step 1: Receiving referrals (smoker or e-cigarette user)

- Receive referral letter and identify referral source.
- Conduct intraoral examination and document signs/symptoms in the LP.8 Pin.8/2019.
- Assess baseline readings and explain the findings to evoke and initiate patient's awareness:
  - For cigarette users: Carbon Monoxide (CO) Analyzer Test - Measures CO levels to raise patient awareness of the toxic gas present in their exhaled breath. Note that this measurement may not be accurate for e-cigarette users.
  - For e-cigarette users: Cotinine Saliva Test - Detects nicotine consumption by identifying cotinine, a chemical formed from the breakdown of nicotine, in the patient's saliva

• Document the data and complete the T1-TC[UPPKA.2022] **(Appendix 18)** and Borang Berhenti Merokok T4-TC [UPPKA.2022] (**Appendix 11).**

Step 2: Patient registration in smoking cessation activity log sheet

- Register patient details, including referral source, contact information, medical history, quit date, and treatment in *Daftar Pesakit ke Perkhidmatan Berhenti Merokok*, PBM[UPPKA.2024] (**Appendix 19**).
- Update the above-mentioned details upon success, quitting or relapse and re-register in a new cohort if necessary.

Step 3: Assess state of behavioural change

- Assess the patient's state of change and acceptance for further intervention. If the patient is referred from other facilities where smoking screening has not yet been conducted, the 3A (Ask-Assess-Arrange) technique can be applied for assessment on the state of change.
- Identify a patient's stage of behavioural change by asking about their intention to quit, any behavioural adjustments, and previous quit attempts.

- There are two methods/tools that can be used to assess patients' state of change:
    - Screening questions from available guidelines such as Garis Panduan Klinik Berhenti Merokok di Klinik Kesihatan KKM:[60]
        1. *Adakah anda berminat dengan serius untuk berhenti merokok dalam masa 6 bulan?*
        2. *Adalah anda merancang untuk berhenti merokok pada bulan hadapan?*
        3. *Adakah anda pernah mencuba untuk berhenti merokok dalam tempoh 12 bulan yang* lepas?
    - QuitASAP Application (**Figure 5.5**)

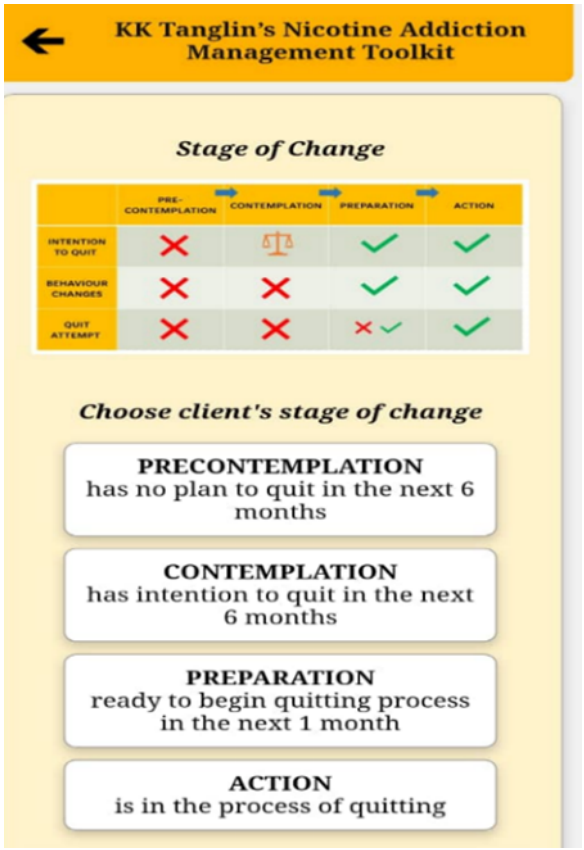

Figure 5.5: Stages of change in QuitASAP Application

[60] Bahagian Pembangunan Kesihatan Keluarga, Kementerian Kesihatan Malaysia. 2022. Garis Panduan Khidmat Berhenti Merokok di Klinik Kesihatan Edisi 2.

Step 4: Intervention using 5A/5R Principles

- If a patient expresses a willingness to quit within the next six months, they are in the 'contemplation' stage.
- Provide counselling following the 5A principles (Ask-Advise-Assess-Assist-Arrange)
    - Ask about tobacco smoking
    - Advice to quit
    - Assess of willingness to make a quit attempt
    - Assist in quit attempt (STAR method and may introduce on pharmacotherapy)
    - Arrange follow-up
- Encourage the patient to set a quit date and seek support using the STAR (Set-Tell-Anticipate-Remove) method
    - S - Ask patient to Set a Quit Date
    - T - Ask patient to Tell family, friends, and coworkers about quitting, and ask for support.
    - A - Anticipate challenges to the upcoming quit attempts including withdrawal symptoms.
    - R - Remove tobacco products from the patient's environment and make smoke free home.
- Record patient's progress in Borang Berhenti Merokok T2-TC[UPPKA.2022] (**Appendix 20**) and LP.8 Pin.8/2019.
- If the patient is at 'non-contemplation' stages, deliver 5R counselling.
    - Relevance: Encourage the patient to indicate why quitting is personally relevant, e.g. health issues and effects on second hand smoke that may affect family.
    - Risk: Encourage the patient to identify the potential negative consequences of tobacco use, including short-term effects such as shortness of breath and increased susceptibility to respiratory infections, long-term effects such as stroke and cancer, as well as environmental risks including exposure to second-hand smoke.
    - Reward: Ask the patient to identify potential benefits of quitting e.g. improve health, and saving money.
    - Roadblock: Ask the patient to identify the barriers to quitting e.g. withdrawal

syndrome, and lack of support.
    - Repeat: Counselling should be repeated at every clinic visit.
- Record the patient's' behaviour change stage and mode of counselling intervention planned in T1-TC[UPPKA.2022] and LP.8 Pin.8/2019.

Step 5: Assess patients' level of nicotine dependence

- Use form Ujian Fagerstrom/Modified Fagerstom Kebergantungan kepada Nikotin FT[UPPKA.2024] (**Appendix 21**)
- Record nicotine dependence levels in T1-TC[UPPKA.2022] and T4-TC[UPPKA.2022] forms for monitoring.

Step 6: Treatment planning and intervention

- Consult with a DPHS for treatment planning, set a quit date, and consider pharmacological approach according to patients' suitability and preferences **(Figure 5.6).**
- Since smoking cessation drugs are listed under the A/KK prescriber category in the current Ministry of Health Medicines Formulary, prescriptions should be approved and supervised by a consultant or specialist. However, for DPHSU without an in-house specialist, the initial consultation must be conducted and approved by the attending Consultant or DPHS. The safety considerations using the pharmacological approach are as in **Appendix 22**.
- For clinicians seeking a more convenient guide for smoking cessation counselling and NRT prescriptions, this document recommends using the QuitASAP Application, available online. However, the app is not applicable to certain groups, including patients below 18 years old, neuropsychiatric patients, pregnant women, those with cardiovascular issues, and patients allergic to NRT.
- Obtain patient consent and record pharmacotherapy details given in T2-TC[UPPKA.2022].

Pharmacological approach

The choice of pharmacotherapy most likely to assist people who are attempting to quit smoking is based on evidence of effectiveness, clinical suitability and patients' choice.[61] Below are findings from the currently available evidence on the effectiveness of various pharmacotherapies:

i. Varenicline:

- Increases 6-12 months abstinence rates by 15% compared to placebo and 7% compared to bupropion.
- More effective than nicotine patches.
- Efficacy is enhanced when combined with intensive behavioural support.

ii. Nicotine Replacement Therapy (NRT):

- Increases 6-12 months abstinence rates by 6% compared to placebo.
- Combining a nicotine patch with a faster-acting NRT (e.g. gum and lozenge) increases abstinence rates by 5% compared to single-form NRT.

iii. Bupropion:

- Increases 6-12 months abstinence rates by 7% compared to placebo.
- As effective as NRT monotherapy but less effective than varenicline based on evidence from three randomized controlled trials.

Considerations when helping an individual to select an appropriate form of pharmacotherapy to quit include:

- previous experience with pharmacotherapy
- cost and convenience
- adherence issues (e.g. individual preferences for a patch or gum, one or more forms of NRT, non-nicotine options)
- prescription medicine versus over-the-counter medicine
- potential for adverse events
- possible drug–drug interactions.

[61] Zwar N, Richmond R, Borland R, Peters M, Litt J, Bell J, Caldwell B & Ferretter I. 2011. Supporting smoking cessation: a guide for health professionals. *The Royal Australian College of General Practitioners*.

The workflow for considering pharmacotherapy in patients is as follow (**Figure 5.6**):

1. Assess nicotine dependence
    a. Determine nicotine dependence by asking the patient or referring to the results of the Fagerstrom Test:
        - Time (in minutes) from waking to the first cigarette
        - Number of cigarettes smoked per day
        - Presence of cravings or withdrawal symptoms in previous quit attempts
    b. Nicotine dependence is indicated if:
        - The patient smokes within 30 minutes of waking up
        - The patient smokes more than 10 cigarettes per day
        - The patient has a history of withdrawal symptoms during previous quit attempts
    c. If nicotine dependence is not present, proceed with a non-pharmacological approach.
    d. If nicotine dependence is present, assess the patient's preferences and suitability for available pharmacotherapy options.
2. Assess patient preferences and clinical suitability
    a. If the patient is unwilling to use pharmacotherapy, proceed with a non-pharmacological approach.
    b. If the patient is willing to use pharmacotherapy, provide options based on:
        - Drug effectiveness
        - Clinical suitability (mode of action, caution for recent cardiovascular events, pregnancy etc.)
        - Patient preferences, including concerns about side effects of non-NRT, over-the-counter (OTC) availability, socioeconomic factors (e.g. government subsidy for certain medications), and adherence factors (e.g. patients with orthodontic appliances or periodontal splinting may prefer alternatives to nicotine gum)
3. Follow-up and monitoring
    a. Review progress and address issues such as incorrect technique or underdosing of NRT.
    b. Monitor for adverse effects, including skin irritation, nausea, and sleep disturbances.
    c. Observe for neuropsychiatric symptoms.

d. Record involve is the T3-TC[UPPKA.2022] (**Appendix 23**)

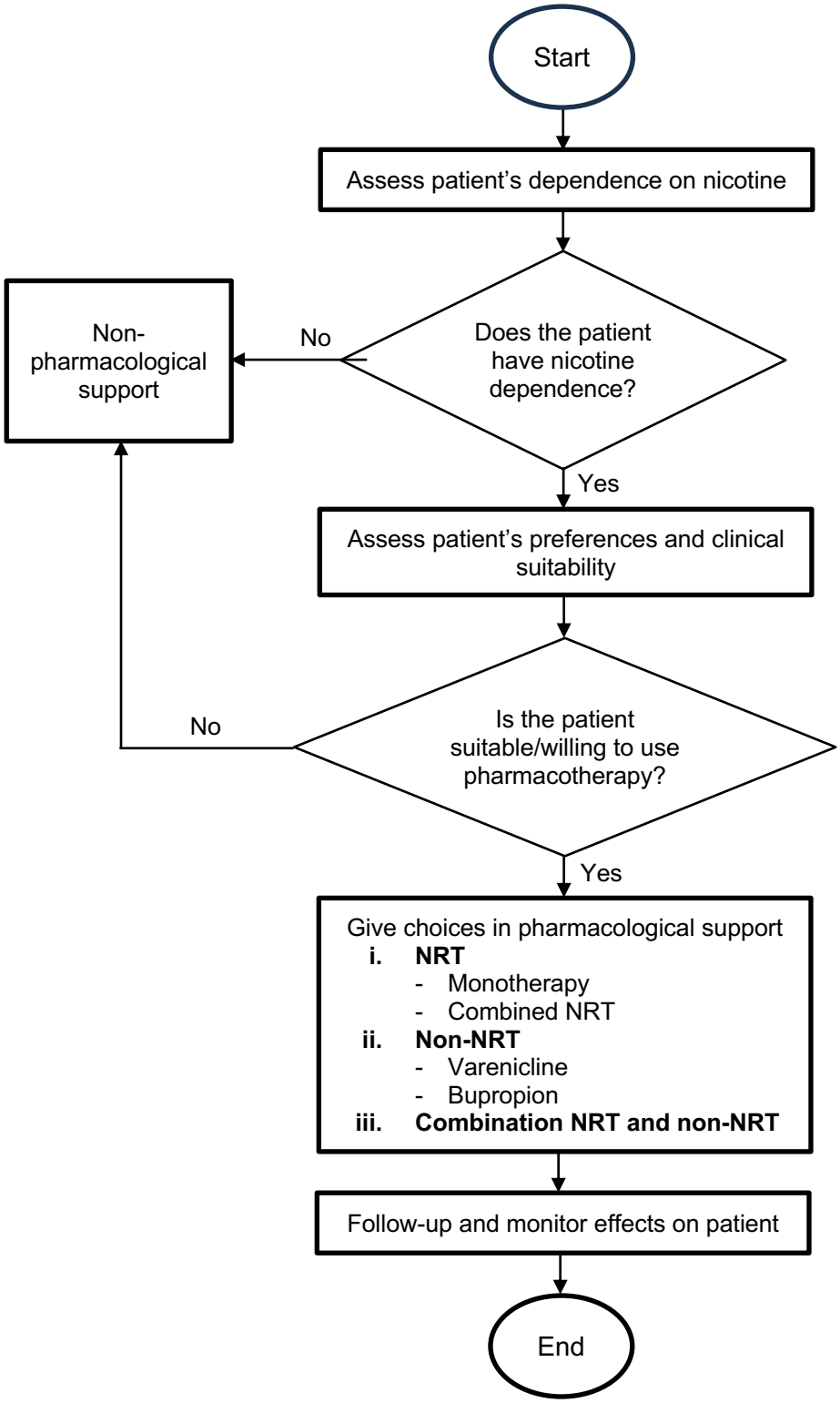

Figure 5.6: Consideration of pharmacological approach for smoking cessation

Guidelines for prescribing NRT

It is important to advise patients on the correct application techniques for different forms of NRT and to ensure they receive an adequate dose to relieve cravings and withdrawal symptoms. Under-dosing is a recognised issue with current NRT, as individuals attempting to quit often do not use enough to achieve the best clinical effect.[61] **Table 5.8** outlines the suggested steps for prescribing NRT at an appropriate dosage. Based on these suggested outlines, the use of various NRTs may be subject to local resource availability and feasibility.

Table 5.8: Steps for prescribing NRT

Steps	Details			
Step 1: Explain how NRT works & available products	● NRT provides some of the nicotine that a person would otherwise get from smoking. While nicotine is the addictive component of cigarettes, nicotine therapy does not cause the harmful effects associated with smoking. ● NRT helps reduce cravings and other withdrawal symptoms associated with quitting smoking. ● Explain the various types of NRT available, such as nicotine gum, nicotine patches, and nicotine mouth spray.			
Step 2: Assess time to first cigarette	Smokes within 30 minutes of waking		Smokes more than 30 minutes after waking	
Step 3: Assess number of cigarettes smoked per day	Smoke 10 or less per day	Smoke more than 10 per day	Smoke 10 or less per day	Smoke more than 10 per day
Step 4: Recommendation (combination therapy)	Nicotine 21 mg/ 24-hour patch **combine with** 2 mg gum **or** 2 mg/1.5 mg lozenge **or** 1 mg spray **or** 15 mg inhalator	Nicotine 21 mg/ 24-hour patch **combine with** 4 mg gum **or** 4 mg lozenge **or** 1 mg spray **or** 15 mg inhalator	Nicotine 2 mg or 1.5 mg lozenge **or** 2 mg gum **or** 1 mg spray **or** 15 mg inhalator	Nicotine 21 mg/ 24-hour patch **combine with** 2 mg gum **or** 2 mg/1.5 mg lozenge **or** 1 mg spray **or** 15 mg inhalator

Step 7: Follow-up visits

- Monitor patient progress (e.g., repeat CO analyser level, cotinine saliva test, blood pressure, BMI reading), reassess nicotine dependence, and provide supportive advice.
- Refer to **Table 5.9** for the timeline of follow-up visits.
- Reassess habit status and nicotine dependence level after six months.
- Reward successful cases with a certificate or special treatment and offer relapse prevention counselling.
- If the patient is unable to quit within six (6) months, proceed with alternative treatment (if available) and consider the patient for a new cohort.

Table 5.9: Suggested timeline for follow-up visits

Stages	Frequency of Follow-ups
1st Month	Once per week (virtual + face to face)
2-3rd Month	Once in 2 weeks visit
4-6th Month	Monthly visit
6th Month	3-monthly visit
Defaulter cases	Fails to attend one week after the given appointment date and does not call back, or misses three appointments within a six-month cohort period. The patient must set a new quit date if they wish to continue treatment.

Step 8: Reports and documentation

- Update the report in Laporan Bulanan Perkhidmatan Berhenti Merokok KBM[UPPKA.2024] (**Appendix 24**), Laporan Kohort Pesakit Berhenti Merokok KBMK[UPPKA.2024] (**Appendix 25**), and PG201 UPPKA (**Appendix 31**),
- Update treatment progress and case completion – Borang Berhenti Merokok T4-TC [UPPKA.2022] and LP.8 Pin.8/2019
- Six-monthly returns; KBMK[UPPKA.2024] Reten Perkhidmatan Berhenti Merokok Setiap Kohort KBMK[UPPKA.2024]
  - Total number of patient registers in the smoking cessation activity within 6 months
  - Total number of patients with a quit date within 6 months
  - Calculation of the current quit rate within 6 months (%):

Total no. of successful cases within 6 months (current 6 months) Total no. of patients with a quit date within 6 months (previous 6 months)	x 100%

The summary of requirements for smoking cessation activities can be found in **Table 5.10.**

Table 5.10: Requirements for smoking cessation activities in the DPHSU

Requirements	Details
Treatment room	• A suitable space to conduct counselling or treatment
Special devices	• CO Analyser & Reference Chart • Digital blood pressure meter, weighing & height scale • Computer set with internet network
Medication	• NRT: Nicotine Patch (10mg, 15mg), Nicotine Gum (2mg, 4mg), Nicotine 1mg/spray Mouth Spray, Supplement Vitamin B Complex/ Vitamin C/Iron Tablet etc. • Non-NRT: Bupropion, Varenicline etc.
Documents involved	• 3A forms, Assessment Forms (T1-T4 , Fagerstrom Test etc) • Consents & Returns (PG 201 UPPKA), Dental Records (LP8) • Others: Prescription slip *Perub. 6A*

Others	• Application
	  • QuitASAP – for clinicians, to assist with counselling (**Figure 5.7**)
	  • Quit Tracker/Habit Monitor - for patients' self-monitoring, (**Figure 5.8**)
	• Self-help Materials
	  • Quit Smoking pamphlets, Dietary & Nutrition Posters - to help patients cope with withdrawal syndromes

Figure 5.7: QuitASAP Toolkit, Quit Smoking Apps guide for healthcare worker for smoking cessation delivery

Figure 5.8: Quit Tracker and Escape the Vape, example of Apps for patients' self-monitoring

b) Betel Quid Chewing Cessation

A quid is a substance, or mixture of substances, placed in the mouth, commonly containing a minimum of two primary ingredients, tobacco or areca nut, in raw or any manufactured or processed form. It typically contains betel leaf, areca nut, slaked lime, and tobacco. Additional ingredients, especially spices such as cardamom, saffron, cloves, aniseed, turmeric, mustard, or sweeteners, are added depending on regional preferences. Betel quid products are usually placed in the oral cavity, where they stay in contact with the oral mucosa rather than being chewed. Nonetheless, they are still considered part of the betel quid chewing habit.[62]

Betel quid chewing habit is widely prevalent in many parts of Asia. This habit is commonplace in Malaysia among the older generation in rural areas. A nationwide survey between 1993 and 1994 revealed that 8.2% of Malaysian adults had a betel quid chewing habit, with a higher prevalence among women (10.5%) than men (4.8%). Commonly seen among people aged 50 and above, this habit was also predominant among Indian females (28.9%), followed by Sabah and Sarawak indigenous females (28.4%).[63,64] A survey among six Malaysian estate communities demonstrated that 19.3% of the study population were betel quid chewers, with the onset of as early as ten years old. This study also revealed that the mean frequency of betel quid chewing was 4.3 times a day, and the mean duration of chewing was 8.1 minutes.[65]

Betel quid has been classified as a Group 1 human carcinogen by the International Agency for Research on Cancer.[66] It is an established risk factor for oral squamous cell carcinoma (OSCC) and oral potentially malignant disorders (OPMDs), such as oral submucous fibrosis, oral leukoplakia, oral erythroplakia, and lichenoid reactions.[67] In addition to being carcinogenic, a systematic review also indicated a significant association between betel quid chewing and oral cancer survival. It was concluded that

[62] Zain RB, Ikeda N, Razak IA, Axell T, Majid ZA, Gupta PC & Yaacob M. 1997. A national epidemiological survey of oral mucosal lesions in Malaysia. *Community Dentistry and Oral Epidemiology*; 25(5): 377-383.
[63] Tan BS, Rosman A, Ng KH & Profile NA. 2000. Profile of The Betel/Tobacco Quid Chewers In six Malaysian Estates. Annals of Dentistry University of Malaya; 7(1): 1–5.
[64] IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. 2004. Betel-quid and areca-nut chewing and some areca-nut derived nitrosamines. *IARC Monographs on the Evaluation of Carcinogenic Risks to Human*; 85: 1.
[65] Warnakulasuriya S & Chen THH. 2022. Areca Nut and Oral Cancer: Evidence from Studies Conducted in Humans. *Journal of Dental Research*; 101(10): 1139–1146.
[66] Yang J, Wang ZY, Huang L, Yu TL, Wan SQ, Song J, Zhang BL & Hu M. 2021. Do betel quid and areca nut chewing deteriorate prognosis of oral cancer? A systematic review, meta-analysis, and research agenda. *Oral Diseases*, 27(6): 1366-1375.
[67] Shafique K, Zafar M, Ahmed Z, Khan NA, Mughal MA & Imtiaz F. 2013. Areca nut chewing and metabolic syndrome: Evidence of a harmful relationship. *Nutrition Journal*; 12(1): 1-6.

the prognosis of oral cancer is worse in betel quid chewers compared to non-chewers.[68] Furthermore, betel quid chewing has also been linked to several metabolic disorders, which include diabetes, hypertension, cardiovascular disease, and obesity.[69,70] Therefore, betel quid chewing cessation could be an essential public health measure to prevent oral cancer and metabolic diseases.

Several betel quid chewing cessation strategies have been reported throughout the literature. One of the interventions employed the 3A3R approach as a behavioural modification strategy for betel quid chewing cessation, adapted from the 5A5R smoking cessation model. The effectiveness of the intervention was measured on improvements in the following indicators: awareness of risks of betel quid use, perceived susceptibility to oral disease, perceived severity of oral cancer, betel quid-related behavioural changes, and frequency of betel quid use. A study by Shinn et al. (2014) concluded that the 3A3R intervention model was effective in helping betel quid chewers overcome their addiction.[69] A systematic review by Gupta et al. (2022) revealed that after receiving 3A3R intervention, 36.16% of the betel quid chewer moved to another stage towards quitting betel chewing.[71] Another systematic review also suggested the use of 3A3R intervention to help betel nut users to quit. According to the study, betel nut use was reduced by an average of 7.77 nuts after the intervention.[72]

[68] Yamada T, Hara K & Kadowaki T. 2013. Chewing Betel Quid and the Risk of Metabolic Disease, Cardiovascular Disease, and All-Cause Mortality: A Meta-Analysis. *PLoS One*; 8(8): e70679.
[69] Ghani WM, Razak IA, Yang YH, Talib NA, Ikeda N, Axell T, Gupta PC, Handa Y, Abdullah N & Zain RB. 2011. Factors affecting commencement and cessation of betel quid chewing behaviour in Malaysian adults. *BMC Public Health*; 11: 1-6.
[70] Shinn LM, Wei SP, Hsin YL & Dalal K. 2014. Evaluation of Effectiveness of the 3A3R Educational Intervention Program for Betel Nut Addicts. *HealthMED*; 8(12): 1303–1310.
[71] Gupta R, Nethan ST, Sinha DN, Gupta S & Singh S. 2023. Systematic review of determinants and interventions of areca nut cessation: curbing a public health menace. *Journal of Public Health*; 45(1): 145–153.
[72] Dhingra K & Jhanjee S. 2023. A Review of Intervention Strategies for Areca Nut Use Cessation. *Indian Journal of Psychological Medicine*; 45(2): 117–123.

The recommended content of the 3A3R model for betel quid cessation is demonstrated below:

Ask Ask about betel quid use.

Advise Educate and encourage quitting. This section includes the 3R portion:

Risk

- Experts around the world have proven that betel quid cause oral cancer, which can be fatal.
- Betel quid chewing is associated with gum problems. If you don't quit this habit now, you might lose your teeth later.
- Chewing betel quid can cause oral submucous fibrosis. People with oral submucous fibrosis will experience limited mouth opening, dry mouth, pain, taste disorders, restricted tongue movement, and swallowing difficulty.
- Betel quid chewing can cause severe teeth wear and sensitivity, as well as teeth staining which affects your appearance.
- You are at a higher risk of developing several metabolic disorders, including hypertension, diabetes, cardiovascular disease, and obesity.

Relevance

- You need to be considerate of your family's feelings. If you get sick, your family will certainly be upset.
- You are the economic basis of your family. If you are sick, who will take care of your family?

Reward

- After you quit chewing betel quid, your health and appearance will improve.
- How much do you spend on betel quid every day? If you quit, you can save XX every month. Per year, that's YY in savings.
- After you quit, you can enjoy sour and spicy foods that you couldn't eat before.

Assess Strengthen motivation and evaluate willingness to quit, e.g., "This Dental Public Health Specialist Unit is running a programme to help people quit betel quid. Would you like to participate?"

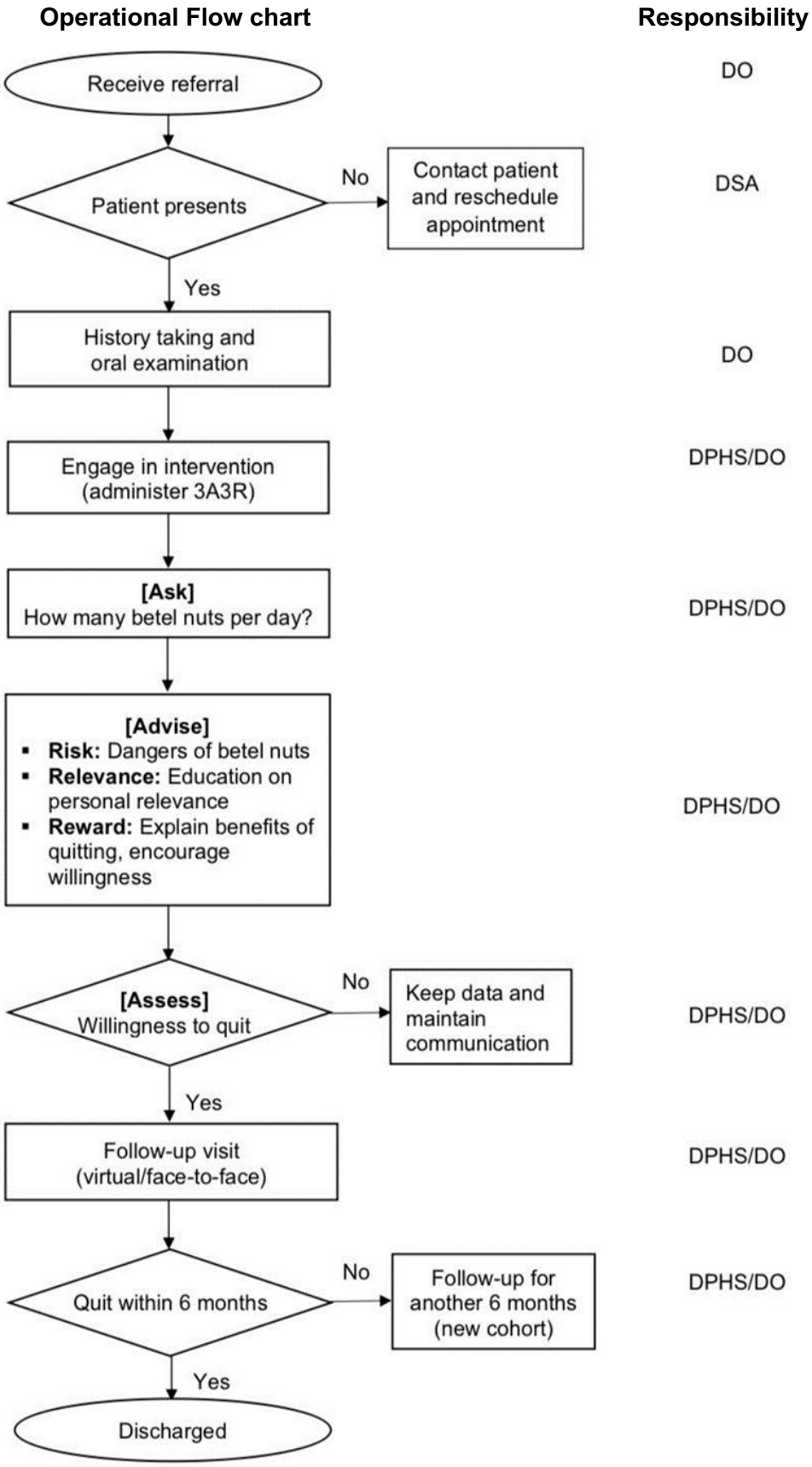

Figure 5.9: Referral and intervention flow chart for betel quid chewing habit

This flow chart in **Figure 5.9** outlines a protocol for managing and encouraging cessation of betel quid chewing in patients, following a structured process to assess, intervene, and support behaviour change:

1. Receive referral:
    - If the patient does not present: Contact the patient to reschedule the appointment.
    - If the patient presents: Proceed to the next step.
2. Initial assessment:
    - Conduct history-taking and an oral examination.
    - Engage the patient in the intervention process by administering the 3A3R framework.
3. 3A3R framework:
    - Ask: Inquire about the number and frequency of betel quid consumed per day.
    - Advise:
        - Risk: Educate the patient on the dangers of betel nut use.
        - Relevance: Highlight how quitting is personally relevant to their health.
        - Reward: Explain the benefits of quitting to encourage their willingness to change.
    - Assess:
        - Determine the patient's willingness to quit.
        - If unwilling: Keep data and maintain communication to support future opportunities for change.
        - If willing: Proceed with follow-up visits.
4. Follow-up and monitoring:
    - Conduct follow-up visits (virtual or face-to-face) to monitor progress.
    - If the patient quits within 6 months: Discharge the patient.
    - If the patient does not quit within 6 months: Continue follow-up for another 6 months as part of a new cohort.

Document all interventions, outcomes, and patient discussions in LP8 and Appendix 4C (Borang Susulan Rujukan Amalan Berisiko) (**Appendix 26**) after 6 months of follow-up.

c) Alcohol Abstinence

Alcoholic beverages are groups of drinks that contain varying amounts of alcohol (ethanol), which can cause drunkenness. Ethyl alcohol or ethanol in alcoholic beverages is a type of depressant drug that can slow down the nervous system and physical activity of the body. In general, alcoholic beverages on the market can be divided into three main groups:

a) Low alcohol content of less than 10%, like most beers
b) Moderate alcohol content between 10% and 20%, like most wines
c) High alcohol content that exceeds 35%, like brandy and samsu

Besides, there are also traditional alcoholic beverages in Malaysia, for example:

a. *Todi* and *Samsu*
b. *Tuak Beras, Ijuk* and *Langkau* in Sarawak
c. *Air tapai, Bahar, Lihing* and *Montoku* in Sabah.

Alcohol consumption is not measured using how many glasses or bottles of drink are taken; it is measured using the "standard drink" unit, which represents a fixed amount of pure alcohol. In Malaysia, the Guidelines for Screening and Prevention and Reduction of Alcohol Harm *(Garis Panduan Saringan dan Intervensi Pencegahan dan Pengurangan Kemudaratan Alkohol)* defines a standard drink as any beverage containing 10 grams of pure alcohol.[73]

Based on the standard drink measurement, the amount of alcohol intake can be estimated for the assessment of the risk of alcohol harm. **Figure 5.10** shows examples of the standard drink measurement in Malaysia.

a) *Bahar/Ijok/Todi*: 4 sips/ 120 ml = 1 alcoholic beverage
b) *Air tapai/Tuak beras/Lihing*: 3 sips/ 90 ml = 1 alcoholic beverage
c) *Montoku/Langkau/ Samsu*: 1 sips/ 30 ml = 1 alcoholic beverage

[73] Bahagian Kawalan Penyakit (NCD), Kementerian Kesihatan Malaysia. 2013. Panduan untuk Sukarelawan di Komuniti: Garis Panduan Saringan dan Intervensi Pencegahan dan Pengurangan Kemudaratan Alkohol.

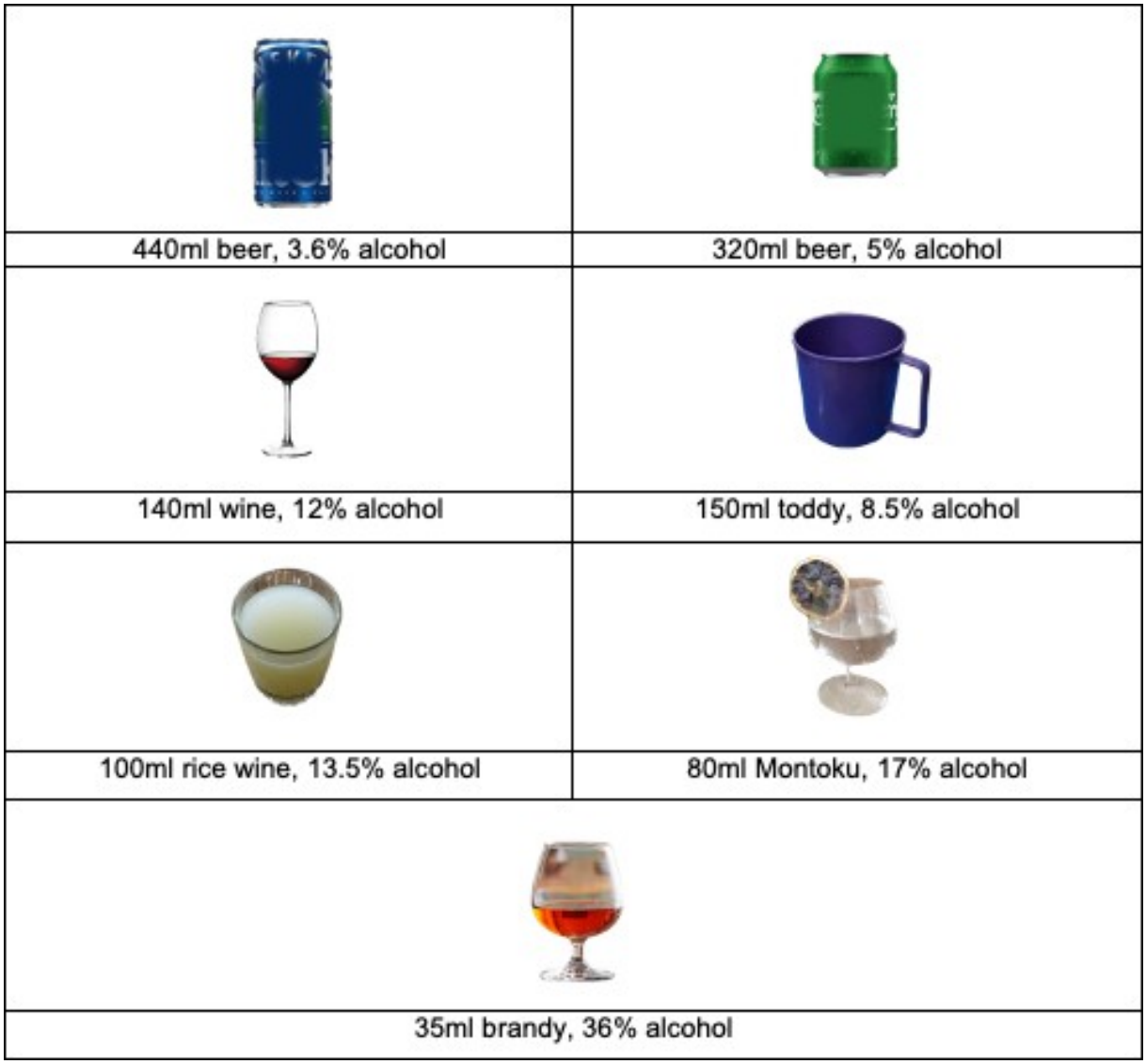

Figure 5.10: Examples of one standard drink measurement in Malaysia

Alcohol is a depressant drug that slows down the activity of the central nervous system. It can have a wide range of adverse effects or negative effects on the drinker from the health, social, and economic/productivity aspects. The risk of alcohol harm depends on the amount and pattern of alcohol intake. Alcohol consumption is linked to **poor oral health conditions,** including dental caries, periodontal disease, dental erosion, dental trauma, dry mouth, halitosis, oral mucosal lesions, and a greater risk of

developing oral cancer.[74,75,76,77] Moderate drinkers have 1.8-fold higher risks of the oral cavity (excluding the lips) and pharynx cancers than non-drinkers. Meanwhile, heavy drinkers have a 5-fold greater risk of oral cavity and pharynx cancers compared to those who do not consume alcohol.[78,79] In addition, the risks of these cancers are substantially higher among alcohol drinkers and smokers.[80]

Alcohol risk can be assessed using the Alcohol Use Disorder Identification Test - Consumption (AUDIT-C) **(Appendix 27)** form. AUDIT-C consists of three questions, each with a corresponding score. After answering all the questions, the scores should be summed to obtain the overall score. The total score will help estimate the risks and determine appropriate interventions to reduce a person's risk of alcohol-related harm. The AUDIT-C score shown in **Table 5.11** is used to assess risk status based on alcohol consumption patterns. The intervention provided will be based on the AUDIT-C scores obtained from the patient.

Table 5.11: The AUDIT-C Score

AUDIT score	Risk	Intervention
0-2	Low	Health education
3-4	Medium	3A3R intervention
5-12	High	3A3R intervention for criteria A

[74] Peycheva K & Boteva E. 2016. Effect of alcohol to oral health. *Acta Medica Bulgarica*; XLIII.
[75] Oliveira Filho PM, Jorge KO, Ferreira EF, Ramos-Jorge ML, Tataounoff J & Zarzar PM. 2013. Association between dental trauma and alcohol use among adolescents. *Dental Traumatology*; 29(5): 372–377.
[76] Lan Z, Zhao IS, Li J, Li X, Yuan L & Sha O. 2023. Erosive effects of commercially available alcoholic beverages on enamel. *Dental Materials Journal*; 42(2): 236–2 40.
[77] Priyanka K, Sudhir KM, Reddy VCS, Krishna Kumar RVS & Srinivasulu G. 2017. Impact of alcohol dependency on oral health – a cross-sectional comparative study. Journal of Clinical Diagnosis Research; 11(6): ZC43.
[78] LoConte NK, Brewster AM, Kaur JS, Merrill JK & Alberg AJ. 2018. Alcohol and cancer: A statement of the American society of clinical oncology. *Journal of Clinical Oncology*; 36(1): 83–93.
[79] Bagnardi V, Rota M, Botteri E, Tramacere I, Islami F, Fedirko V, Scotti L, Jenab M, Turati F, Pasquali E & Pelucchi C. 2015. Alcohol consumption and site-specific cancer risk: a comprehensive dose–response meta-analysis. *British Journal of Cancer*; 112(3): 580-593.
[80] Hashibe M, Brennan P, Chuang SC, Boccia S, Castellsague X, Chen C, Curado MP, Dal Maso L, Daudt AW, Fabianova E & Fernandez L. 2009. Interaction between tobacco and alcohol use and the risk of head and neck cancer: pooled analysis in the International Head and Neck Cancer Epidemiology Consortium. *Cancer Epidemiology Biomarkers & Prevention*; 18(2): 541-550.

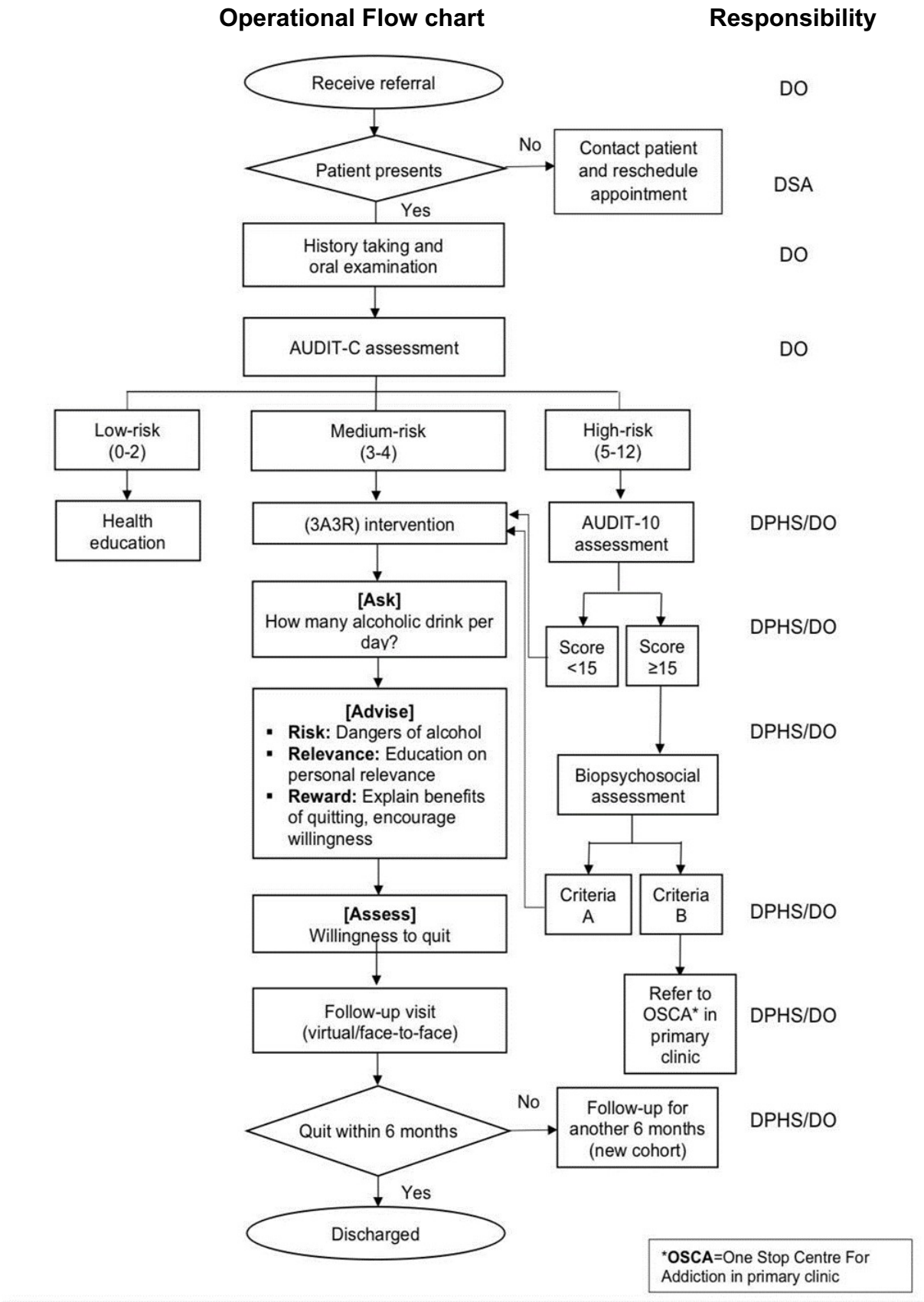

Figure 5.11: Referral and intervention flow chart for alcohol addiction

This flow chart (**Figure 5.11**) outlines the protocol for assessing and managing alcohol consumption in patients, focusing on identifying risk levels and implementing appropriate interventions:

1. Receive referral:
    - The process begins when a referral is received.
    - If the patient does not present: Contact the patient and reschedule the appointment.
    - If the patient presents: Proceed with the assessment.
2. Initial assessment:
    - Conduct history-taking and an oral examination.
    - Perform the AUDIT-C assessment (Alcohol Use Disorders Identification Test - Consumption).
3. Risk categorization based on AUDIT-C Scores:
    - Low-Risk (0–2): Provide health education.
    - Medium-Risk (3–4): Implement the 3A3R intervention:
        - Ask: Inquire about the number of alcoholic drinks per day.
        - Advise:
            - Risk: Explain the dangers of alcohol consumption.
            - Relevance: Highlight the personal relevance of reducing alcohol intake.
            - Reward: Outline the benefits of quitting and encourage willingness.
    - High-Risk (5–12):
        - Conduct a full AUDIT-10 assessment:
            - Score <15: Provide 3A3R intervention.
            - Score ≥15: Refer the patient to the One Stop Centre for Addiction (OSCA) in the primary clinic for specialized support.
4. Assess willingness to quit.
5. Follow up with virtual or face-to-face visits.
    - If the patient quits within six months, discharge them; otherwise, continue follow-up for another six months in a new cohort.
6. Discharge
    - Patients are discharged once they successfully quit within six months.

Low Risk Intervention

For patients who are assessed to be at low risk (AUDIT-C score of 0-2), the intervention proposed is to provide health education on the harmfulness of alcohol. The goal of health education is to provide information about the harmfulness of alcohol, so that they can reduce the risk associated with alcohol consumption following the practice of "alcohol-free health". The health information to be conveyed is as in **Appendix 28**.

Medium Risk Intervention

Patients at moderate risk (AUDIT-C score of 3-4) should be given a 3A3R intervention, similar to the betel quid cessation approach. The recommended content of the 3A3R model for alcohol abstinence is demonstrated in below.

Ask Ask about alcohol use.

Advise Educate and encourage quitting. This section includes the 3R portion:

Risk

- *Alcoholics are at high risk of developing dental caries, gingival diseases and may suffer from oral cancer. The risk of oral cancer further increases when alcohol is consumed along with cigarettes.*
- *Alcoholics generally have a high incidence of decayed teeth which leads to tooth decay or tooth extraction. If you don't quit this habit now, you might lose your teeth later.*
- *People addicted to alcohol are at increased risk of developing dental erosion because most alcohol is acidic. This can cause severe tooth sensitivity.*
- *Alcohol abuse can also lead to road accidents, individual violence, suicides and epilepsy.*
- *You are at a higher risk of developing several metabolic disorders, including hypertension, cardiovascular disease, pancreatitis and cancer.*

Relevance

- *Alcohol abuse can lead to legal troubles such as domestic violence. Quitting can prevent this from happening.*
- *Alcohol addiction can strain relationships with family and friends. Quitting can help rebuild trust and strengthen connections.*
- *Alcohol can exacerbate mental health issues like anxiety and depression. Quitting can lead to better emotional stability and clarity of your mind.*

- *You are the economic basis of your family. If you are sick, who will take care of your family?*

Reward

- *Quitting alcohol can open up opportunities for personal growth and self- improvement. It allows you to focus on hobbies, goals, and aspirations*
- *Quitting alcohol can significantly improve your overall health. It reduces the risk of oral health disease, liver disease, heart problems, and improves your immune system*
- *How much do you spend on alcohol every day? If you quit drinking alcohol, you can save XX every month. Per year, that's YY you will save.*

Assess This DPHSU is running a programme to help people quit alcohol addiction. Would you like to participate?

High Risk Intervention

A patient with an AUDIT-C score of 5 or more should perform a risk assessment using AUDIT-10 (**Appendix 29**). The AUDIT-10 filter has ten questions compared to the AUDIT-C, which only has three questions. The AUDIT-10 questions are as in **Appendix 29.** After conducting a risk assessment using AUDIT-10, patients scoring less than 15 should receive interventions similar to those for medium-risk patients (3A3R). Patients scoring 15 or higher on AUDIT-10 should be referred to the One Stop Centre for Addiction (OSCA) in the primary clinic for further management. There are 74 OSCA in Malaysia as shown in **Appendix 30**.

Document all interventions, outcomes, and patient discussions in LP8 and Appendix 4C (Borang Susulan Rujukan Amalan Berisiko) (**Appendix 26**) after 6 months of follow-up.

5.3.4 Dental Anxiety

Managing dental anxiety is crucial to ensuring patients receive the care they need without fear or distress. The approach can be psychological, behavioural, environment, or pharmacological, depending on the severity of the anxiety. Using these approaches, clinicians can help patients feel more at ease, improving their overall clinical experience and oral health outcomes. In DPHSU, the management of dental anxiety focuses on patients with low to moderate anxiety levels, utilising non-pharmacological approaches, as assessed by the M-MCDAS/MDAS scoring system. Patients with high anxiety scores should be referred to the appropriate specialty for further management **(Table 5.12).**

Table 5.12: Recommended management based on M-MCDAS and MDAS scoring

Score		Definition	Recommended Management
M-MCDAS	**MDAS**		
8	5	Low anxiety	Non- Pharmacological • Positive early dental experiences • Prevention of decay (fluoridation) • Acclimatisation visits (familiarisation dental visit) • Warmth and welcoming environment • Ice breaking and build rapport • Voice control • Distraction • Positive reinforcement • Tell-Show-Do • Enhancing sense of control • Stop signal • Allowing choices • Memory reconstruction • Environment change • Physical restriction/clinical holding/ Physical restraint
9 - 18	6 - 18	Moderate anxiety	Non-pharmacological In addition to methods in low anxiety: • Preparatory information • Too little or too much information can be detrimental • Age and personality important • Information should be more focused • Sensory expectations • Coping strategies Cognitive Behavioural Therapy (CBT) A combination of: • Cognitive therapy (relating to thoughts)

Score		Definition	Recommended Management
M-MCDAS	MDAS		
			• Education • Challenging thoughts • Behaviour therapy (changing behaviour • Graded exposure
≥ 19	≥ 19	High anxiety	Refer to a paediatric/special care dentistry specialist for pharmacological intervention: • Inhalation sedation • Intravenous sedation • General anaesthesia

5.3.5 Motivational Interviewing

Transforming knowledge into action is one crucial aspect for any clinician in promoting positive health behaviours. Patients' empowerment in taking proactive steps towards improving their health is a pivotal aspect of effective healthcare promotion. Hence, it is a great challenge to ensure patients understand and take seriously the information given to them. In the DPHSU settings, the operator may take up a motivational interviewing (MI) technique to facilitate positive changes in their patients. In relation, a meta-analysis of Randomized Controlled Trials has evidenced that the provision of oral health education (OHE) with MI to caregivers is effective in reducing dental caries levels among young children.[81]

MI uses a collaborative client-centred counselling style to enhance the readiness to change and considers the patient's capacity in their individual context to sustain long-term behavioural change.[82] The overall spirit of MI has been described as collaborative, evocative and honouring of the patient's autonomy.

MI focuses on eliciting and strengthening the patient's motivations for change, rather than imposing external pressure or provoking resistance. This approach is rooted in the understanding that lasting behaviour change is more likely to occur when individuals feel intrinsically motivated and committed to their goals.

MI techniques, such as reflective listening, open-ended questions, and affirmations, are used to explore the patient's perspectives, values, and reasons for considering change. The aim is to understand the patient's unique experiences and challenges without judgment, while also highlighting the potential benefits of change in alignment with the patient's goals and values.

By actively engaging with the patient's reasoning for change, MI fosters a sense of ownership and empowerment, enhancing the patient's motivation and readiness to take action. This collaborative and non-confrontational approach respects the patient's autonomy and encourages them to explore their ambivalence. Ultimately, this process

[81] Noorul NNZ, Norkhafizah S, Zuliani M & Nur ACR. 2022. Oral Health Education Intervention Strategies on Pregnant Women and/or Caregivers of Young Children in Preventing Early Childhood Caries: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Universiti Sains Malaysia.
[82] Miller WR & Rollnick S. 2012. *Motivational interviewing: Helping people change*. Guilford press.

helps patients make informed decisions that align with their values and priorities. **Figures 5.12** details the flow of an effective MI with an output of behaviour change.

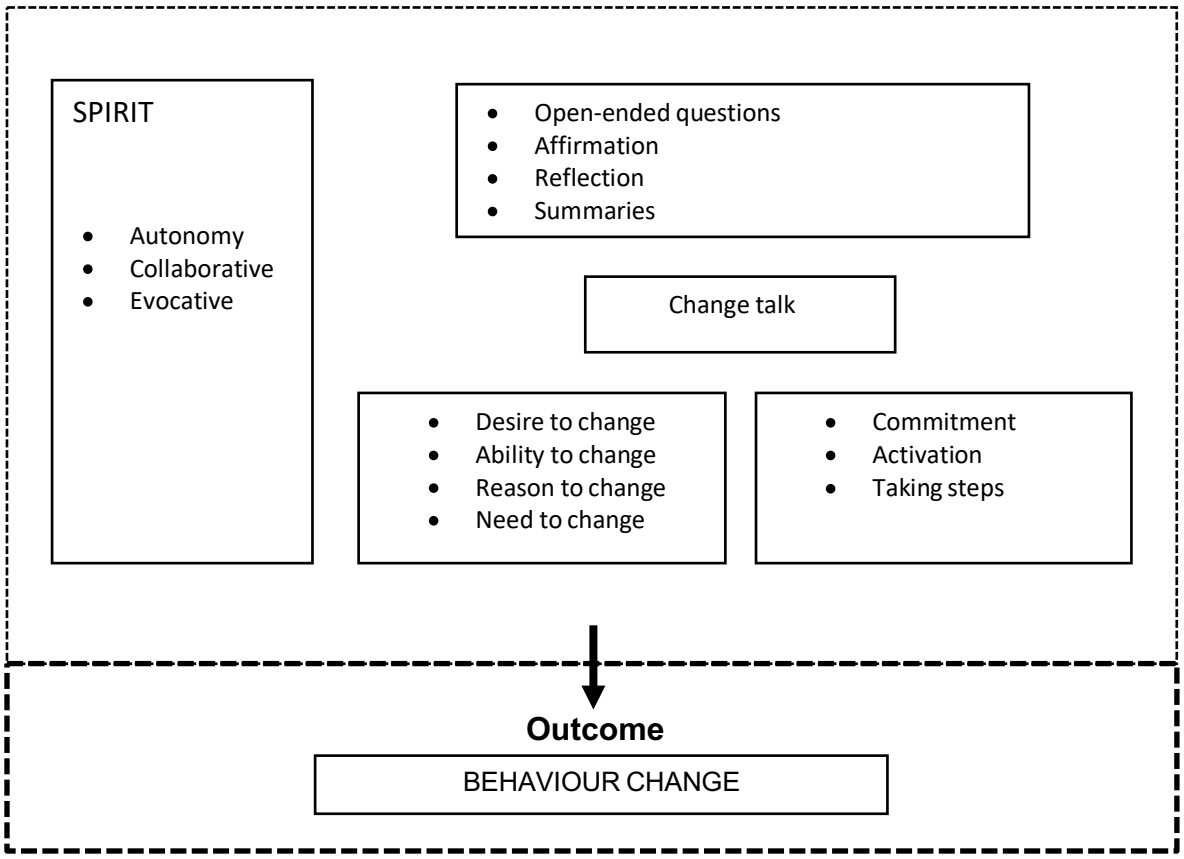

Figure 5.12: Framework of the MI process

List of Patients Indicated for Motivational Interviewing

The MI technique can be effectively used in a dental setting to address various behaviours that impact oral health. A wide range of patients can benefit from MI in a dental setting, particularly those who exhibit ambivalence or resistance to adopting healthier behaviours. In general, all patients needing behavioural modification can receive MI provided by the clinicians. MI has been used in several contexts, such as substance abuse, smoking, diet, and exercise.[83] In DPHSU, the list of patients indicated for MI is as in **Table 5.13**.

[83] Rubak S, Sandaek A, Lauritzen T & Christensen B. 2005. Motivational interviewing: a systematic review and meta-analysis. *British Journal of General Practice*; 55(513): 305-312.

Table 5.13: Indicated patients and MI focus

No.	Indicated Patients	Description	MI Focus
1	Patients with poor oral hygiene	Patients who have difficulty maintaining consistent and effective oral hygiene practices, leading to issues such as plaque build-up, gingivitis, or cavities.	● Exploring the patient's understanding of oral hygiene and its importance ● Identifying barriers to regular brushing and flossing. ● Collaboratively developing a plan to improve daily oral care routines.
2	Patients with dietary habits affecting oral health	Individuals whose diet contributes to dental problems, such as high sugar consumption leading to caries or acidic foods causing enamel erosion.	● Discussing the impact of dietary choices on oral health. ● Encouraging self-reflection on eating habits and readiness to change. ● Setting achievable goals for dietary modifications to improve oral health.
3	Patients with tobacco or substance use	Patients who use tobacco products or other substances that negatively impact oral health, increasing the risk of periodontal disease, oral cancer, and other issues.	● Addressing the patient's motivations for tobacco or substance use. ● Highlighting the oral and overall health risks associated with these behaviours. ● Supporting the patient in identifying reasons for quitting and planning for cessation.
4	Patients with anxiety or fear	Individuals who experience significant anxiety or fear about dental visits, which can lead to avoidance of necessary dental care.	● Understanding the patient's fears and concerns about dental procedures. ● Building trust and rapport to reduce anxiety. ● Empowering the patient to express their needs and preferences for a more comfortable experience.
5	Paediatric patients and their caregivers	Children who need to establish good oral hygiene habits early on, along with their caregivers who influence these behaviours.	● Engaging with caregivers to reinforce the importance of oral hygiene for children. ● Teaching age-appropriate techniques and routines for oral care. ● Motivating children through fun and interactive approaches to dental hygiene.
6	Patients with chronic conditions affecting oral health	Individuals with conditions like diabetes, cardiovascular disease, or xerostomia (dry mouth) that can complicate oral health management.	● Educating the patient on the link between their chronic condition and oral health. ● Encouraging adherence to both medical and dental care routines. ● Collaborating on strategies to manage oral health alongside their chronic condition.

No.	Indicated Patients	Description	MI Focus
7	Patients resistant to professional dental advice	Patients who may be sceptical of or resistant to professional dental recommendations, e.g. the need for regular check-ups or specific treatments.	● Understanding the reasons behind the patient's resistance or scepticism. ● Providing information in a non-judgmental and patient-centred manner. ● Encouraging the patient to consider the benefits of following professional advice
8	Pregnant women	Pregnant women who need to maintain good oral health to prevent potential complications like pregnancy gingivitis or preterm birth linked to periodontal disease.	● Educating about the importance of oral health during pregnancy. ● Addressing specific concerns related to pregnancy and dental care. ● Encouraging adherence to preventive measures and regular dental visits.
9	Elderly patients	Older adults who may face unique challenges in maintaining oral health due to physical limitations, medication side effects, or cognitive decline.	● Discussing the impact of ageing on oral health and the importance of regular care. ● Identifying practical solutions to overcome physical or cognitive barriers. ● Supporting caregivers in assisting with oral hygiene if needed.

MI is a versatile and effective approach in a dental setting that can be adapted to a wide variety of patients. By focusing on understanding each patient's unique motivations and barriers, dental professionals can use MI to encourage positive behaviour changes and improve overall oral health outcomes. Hence, all activities involving intervention to deal with poor oral hygiene, diet, smoking, high-risk habits, dental fear and anxiety, need to integrate MI. Therefore, clinicians working at DPHSU need to have skills in applying the MI technique.

Fundamental Skills in Motivational Interviewing

The core skills in MI are having Open-ended questions to interrogate with patients, giving Affirmations to the patient's belief, respect patient's thought by Reflections and briefly recap patient's statements with Summaries (OARS):

i. Open-ended questions serve as a powerful tool for building rapport, fostering empathy, and promoting patient-centred care. It creates a space for open dialogue

and mutual exploration, laying the foundation for a positive and productive clinician-patient relationship. This is the first essential step in creating a safe and trusting environment between the clinician and patient. Examples of open-ended questions are as in **Table 5.14**.

Table 5.14: Example of open-ended questions

No.	English version	Malay Version
1.	What is your primary concern?	*Apakah perkara yang paling membimbangkan anda?*
2.	What do you know about your oral condition?	*Apakah yang anda tahu mengenai keadaan mulut anda?*
3.	When do you first realize about the condition?	*Bila anda sedar mengenai keadaan itu?*
4.	Why do you think you have the condition?	*Mengapa anda fikir anda mendapat penyakit tersebut?*
5.	What do you think can be done to get the condition better?	*Apakah yang boleh dibuat untuk memperbaiki keadaan kesihatan anda?*

ii. Affirmations are used as a key component to enhance motivation, build self-esteem, and reinforce positive behaviours. Also, it can be used to raise empathy about a patient's situation, hence it will strengthen the therapeutic relationship. Examples of affirmation statements:

- *I appreciate your openness and honesty*
- *I truly understand what you're dealing with*

iii. Reflection is another method that refers to verbal responses from the clinician that mirror or echo back the patient's thoughts, feelings, or experiences. Reflections are statements made by the clinician that demonstrate active listening and empathy, while also encouraging deeper exploration of the patient's perspective. It may be as simple as rephrasing what the patient was saying.

Example of reflection:

"I want to have a healthy mouth, but I can't resist drinking sodas and taking up sweets. I have had sweet teeth since I was small. I've tried to reduce the intake but still can't get rid of it''.

Simple reflections:

Rephrase – "You want to have a healthy mouth but you can't resist your sodas and sweets"; or,

Rephrase – "You know that a healthy mouth is important but you find it difficult for you to stop taking sweets and carbonated drinks".

iv. Summarising involves synthesizing and recapping key points discussed during the interaction with the patient. It serves as a means of organizing the conversation, highlighting important themes, and reinforcing the patient's motivations and goals. It promotes clarity, understanding, and collaboration between the clinician and the patient, ultimately enhancing the effectiveness of the interaction and supporting the patient's journey toward positive behaviour change.

Example of summarizing:

"*Okay, so this is what I have heard so far. Please let me know if i missed anything".*

In MI, change talk is considered a key predictor of behaviour change and is often elicited and reinforced by the clinician throughout the interaction. By recognising, eliciting, and reinforcing change talk, clinicians can empower patients to explore their motivations and goals, ultimately facilitating positive behaviour change and improving health outcomes.

In eliciting change talk, clinician can refer to the '**DARN CAT'** statements below:

- Desire - *Why do you want to make this change?*
- Ability - *How might you be able to do it?*
- Reasons - *What are the good reasons to make change?*
- Need - *How important is it and why?*
- Commitment - *What do you intend to do?*
- Activation - *What are you ready or willing to do?*
- Taking Steps - *What have you already done?*

It is important to ensure the steadfastness of the patients in translating knowledge given to good practice. In a limited setting with time constraints, personnel ability to perform MI, patient loads and other factors, MI can be delivered with such flexibility of duration, number of sessions and focus as long as the objective of the intervention can be completed. MI is an approach that can be used in every clinical session without limiting it to specific interventions only.

5.4 Clinical Preventive Treatments

Clinical preventive treatments involve proactive interventions aimed at preventing the onset or progression of diseases. In DPHSU, this includes procedures such as prophylaxis to prevent periodontal disease, fluoride varnish applications to strengthen enamel, dental sealants to protect against cavities, and early restorative care to manage incipient caries. These treatments help reduce the need for more invasive dental procedures, improve oral health outcomes, and contribute to overall well-being by addressing risk factors before they lead to serious conditions.

5.4.1 Prophylaxis/Polishing

Dental prophylaxis or polishing, commonly known as dental professional cleaning, is a procedure that involves the smoothening of the tooth surface by complete removal of plaque, salivary pellicle, *materia alba* and extrinsic stains of the crowns of teeth.[84] The procedure aims at maintaining oral health as well as preventing dental caries, gingivitis and periodontal disease.

During the process of tooth polishing, the operators need to use proper technique to reduce unnecessary abrasion on the exposed enamel and dentine surfaces; select the least abrasive polishing agent that will remove plaque biofilm and stain; control the time, speed and pressure during the procedure; and when polishing a restorative material, care has to be taken to use a softer abrasive particle than the restorative material. The most frequently used of polishing pastes are pumice and calcium carbonate. Calcium carbonate is less abrasive than pumice, produces minimum

[84] Azarpazhooh A & Main PA. 2009. Efficacy of dental prophylaxis (rubber cup) for the prevention of caries and gingivitis: a systematic review of literature. *British Dental Journal*; 207(7): E14–E14.

scratches and has a highly reflective surface.[85]

There are also several contraindications for use of oral prophylaxis polishing paste, such as absence of extrinsic stains, acute gingival and periodontal infection, aesthetic restorations, allergy to paste ingredients, dental caries, decalcification, enamel hypoplasia, exposed dentin or cementum, hypomineralization, newly erupted teeth, patients with respiratory problems, recessions, tooth sensitivity, and xerostomia.[86]
The procedure of dental prophylaxis/polishing involves:

i. Assess the oral health of the patients, including the oral hygiene (present of dental plaque, stains and calculus).
ii. If calculus present, remove the calculus using scaler (ultrasonic or hand scaler). Focus both above and below the gingival margin of all teeth.
iii. Properly insert the rubber cup or brush into the chuck of low-speed handpiece.
iv. Place polishing paste on a rubber cup or brush.
v. By using the appropriate amount of force, pressure, time and speed, remove extrinsic stains, plaque and debris on the coronal surfaces of all teeth.

5.4.2 Fluoride Varnish Application

The benefits of fluoride varnish (FV) application are firmly established based on a sizeable body of evidence from randomized controlled trials, and its use should be guided by risk assessment protocols. The best indicator of risk for caries is previous or current caries experience. A thorough medical history, including known allergies shall be obtained from the patients or parents/guardians/caregivers of toddlers prior to FV application. FV application is contra-indicated in asthmatic patients, patients with ulcerative gingivitis or stomatitis or other known allergies.

The procedures for application technique and post-application instructions are listed in the Manual Fluoride Varnish Programme for Toddlers and Standard Operating Procedure Prevention of Dental Caries for Lifelong Smiles.[87,88]

[85] Tungare S & Paranjpe AG. 2019. Teeth Polishing. *StatPearls*.
[86] Sawai MA, Bhardwaj A, Jafri Z, Sultan N & Daing A. 2015. Tooth polishing: The current status. *Journal of Indian Society of Periodontology*; 19(4): 375–380.
[87] Oral Health Programme, Ministry of Health Malaysia. 2019. Fluoride Varnish Programme for Toddlers.
[88] Oral Health Programme, Ministry of Health Malaysia. 2024. Prevention of Dental Caries for Lifelong Smiles Standard Operating Procedure.

5.4.3 Calcium Phosphate Application

Calcium phosphates are clinically proven as anti-caries agent. For patients at risk of dental caries, the availability of calcium and phosphate ions is important. Calcium and phosphate from outside sources may be able to alter the cariogenic potential of dental plaque biofilm. Calcium phosphate products are able to enhance the bioavailability of calcium and phosphate ions and aid in the enhancement of remineralisation.

Four types of calcium phosphate-based technologies that are usually used are amorphous calcium phosphate (ACP), casein phosphopeptide amorphous calcium phosphate (CPP-ACP), calcium sodium phosphosilicate (CSP), and tri-calcium phosphate (TCP).[89]

The application technique for calcium phosphate is listed below:

i. Clean teeth by wiping with cotton gauze. Where there is heavy plaque or debris, clean with a toothbrush. Professional prophylaxis is not necessary before calcium phosphate application.
ii. Lightly dry the teeth with cotton gauze.
iii. Isolate the teeth (e.g. with cotton rolls) to prevent recontamination with saliva. Apply a thin layer of calcium phosphate using a small brush or applicator. Avoid applying calcium phosphate on large open carious cavities or when there is intra-oral inflammation.
iv. Apply calcium phosphate on upper teeth first starting from posterior teeth followed by anterior teeth. Then apply calcium phosphate on lower teeth from posterior teeth to the other posterior ends.

Post-application Instructions are:

i. Patients should not rinse, eat or drink for at least 30 minutes after the procedure. Soft diet is recommended for the rest of the day.
ii. Patients should not brush his/her teeth for the rest of the day. Normal oral hygiene procedures can recommence the next morning.
iii. Inform patients or parents/guardians/caregivers that the calcium phosphate may produce certain tastes due to flavouring.

[89] Meyer F, Amaechi BT, Fabritius HO & Enax J. 2018. Overview of Calcium Phosphates used in Biomimetic Oral Care. *The Open Dentistry Journal*; 12(1): 406.

5.4.4 Fissure Sealant

Fissure sealant is defined as a material that is placed in the pits and fissures of teeth in order to prevent or control the development of dental caries. Fissure sealant plays an important role in caries prevention because it can protect caries-susceptible pits and fissures that are least protected by fluoride. Pits and fissures are surfaces most prone to dental caries due to morphological characteristics when compared to other tooth surfaces. The procedures for application technique of fissure sealant are listed in the Standard Operating Procedure Prevention of Dental Caries for Lifelong Smiles.[61]

5.4.5 Preventive Resin Restoration (PRR) Type 1

In a minimally invasive approach, dental caries is managed by delaying operative intervention as long as possible. The focus is on maximum conservation of demineralised enamel and dentine. This approach involves early detection and treatment of caries using techniques that avoid or delay more invasive procedures. Preventive Resin Restoration (PRR) utilises invasive and non-invasive treatment of borderline or questionable caries. PRR Type 1 is the preventive treatment for tooth surfaces where caries lesion is confined to the enamel layer in pits and fissures, in which fissure sealant materials will be used and the tooth is still considered sound. The procedures for the application technique of PRR Type 1 are listed in the Standard Operating Procedure Prevention of Dental Caries for Lifelong Smiles.[61]

5.4.6 Silver Diamine Fluoride

Silver diamine fluoride (SDF), when applied only to carious teeth, arrested caries and indirectly inhibited demineralisation in untreated sound enamel consistent with clinical findings and to a lesser extent, in untreated demineralised enamel, but not in dentin. Demineralisation inhibition may be due to the fluoride released from SDF.[90] The procedures for application technique of SDF are listed in the *Panduan Penggunaan Silver Diamine Fluoride (SDF) Dalam Rawatan Karies*.[91]

[90] Romero MJRH & Lippert F. 2021. Indirect caries-preventive effect of silver diamine fluoride on adjacent dental substrate: A single-section demineralization study. *European Journal of Oral Sciences*;129(1): e12751.
[91] Oral Health Programme, Ministry of Health Malaysia. 2024. Panduan Penggunaan Silver Diamine Flouride SDF Dalam Rawatan Karies.

5.5 Advance Clinical Preventive Treatment

For advanced clinical preventive treatment in oral health management, we can focus on more cutting-edge techniques and personalised approaches, integrating technology and the latest research to provide more effective prevention and early intervention.

i. Genetic and Microbiome Assessment

- **Saliva Genomic Testing**: Use genomic saliva tests to assess a patient's genetic predisposition to conditions like caries, periodontal disease, or oral cancer. This could help to predict an individual's risk more accurately and develop a personalised treatment plan.[92,93]
- **Oral Microbiome Analysis**: Identify harmful bacteria in the oral microbiome using advanced DNA sequencing techniques. This would enable clinicians to identify patients at higher risk for periodontal disease or caries and target these specific bacteria with tailored treatments e.g., probiotics, antimicrobial mouth rinses.[94,95]

ii. Artificial Intelligence (AI) and Imaging

- **AI for Caries Detection**: Incorporating AI-based imaging systems, such as digital radiographs or intraoral cameras, to detect caries or early-stage lesions more accurately. AI algorithms can analyse images in real-time and help identify areas at risk of decay before they become clinically apparent.[96,97]
- **Advanced 3D Imaging**: Use 3D cone beam CT scans or digital impressions to assess the health of soft and hard tissues in the mouth. This provides a more precise and comprehensive understanding of the patient's oral health, enabling more personalised preventive care.
- **Oral Cancer Screening with Artificial Intelligence**: Implementing AI-powered diagnostic tools that analyse images and other clinical data to detect oral cancer at its earliest and most treatable stage.

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iii. Regenerative Treatments

- **Stem Cell Therapy**: In the future, stem cell-based therapies may help in the regeneration of damaged tissues, such as the gums and enamel, or even help in the regeneration of pulp tissue in the case of dental caries.[98]
- **Platelet-Rich Plasma (PRP)**: The application of PRP in oral health care could help to promote tissue healing, particularly in periodontal regeneration. It can be used to enhance tissue repair after deep cleanings or surgical interventions.[99]

iv. Advanced Fluoride and Calcium Treatments

- **Nano-hydroxyapatite (Nano-HA) Treatment**: Use nano-hydroxyapatite, a biomimetic material, for remineralising enamel. It can be more effective than fluoride alone, especially in patients with sensitive teeth or those at high risk of decay.[100]
- **Bioactive Glass**: Incorporating bioactive glass into preventive treatments can aid in remineralisation, prevent bacterial adhesion, and enhance the durability of enamel.[101]

v. Laser Dentistry

- **Laser-Assisted Cavity Detection**: Laser technology can be used to detect decay that is not visible to the naked eye. It can also be used for non-invasive cavity treatment, which can be less painful and require fewer dental visits.[102]

All these techniques may take time to be realised and need to be explored for the advancement of dentistry in Malaysia. These advanced treatments represent the cutting edge of oral health care and can significantly improve preventive efforts, ensuring more effective, personalised, and proactive patient care.

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5.6 Curative Treatments

Patients should receive **basic dental treatments** (such as fillings and scaling) at a **primary dental clinic** before being referred to DPHSU. DPHSU primarily focuses on consultation, screening and assessment, behavioural management, and clinical preventive treatments. However, curative treatments **may be provided** based on the patient's needs and circumstances. Complex dental procedures, such as root canal treatments, prosthetics, advanced periodontal treatments, and oral surgery, are not performed at DPHSU.

5.7 Virtual Dental Clinic

The Virtual Dental Clinic is a service that provides virtual, real-time, and interactive dental consultations between dental practitioners and patients. This service encompasses both clinical assessments and the formulation of dental treatment plans. The Virtual Dental Clinic serves as an alternative to conventional outpatient services offered at primary dental clinics, including both hospital based and non-hospital based specialist dental services.

The implementation of the Virtual Dental Clinic offers several benefits. It significantly reduces the time and transportation costs incurred by patients, as it eliminates the need for physical visits to dental health facilities. Additionally, it minimises the frequency of in-person appointments and reduces waiting times for dental consultations. This enhances overall patient convenience while maintaining access to quality dental care.

Mainly, the scope of services for the Virtual Dental Clinic are:

- Consultation on oral healthcare plans and treatment
- Follow-up monitoring for patients with existing dental conditions
- Follow-up monitoring for patients who have completed specific dental procedures
- Periodic review and continuous monitoring for patients with ongoing or complex dental issues

- Issuance of follow-up appointments during the virtual consultation sessions
- Provision of dental health education

The detailed scope of services for DPHSU is available in *Garis Panduan Klinik Pergigian Virtual, Program Kesihatan Pergigian, Kementerian Kesihatan Malaysia*. (at the time of writing, the guideline had not yet been published).

5.8 Multidisciplinary Clinic

A multidisciplinary clinic is defined as a group of health care professionals who have cognitive and procedural expertise in different areas of care delivery and can efficiently manage complex medical conditions. Multidisciplinary clinics involve collaboration between different specialties. The key is to build dedicated professionals who share a common goal of providing optimum oral healthcare to patients.

5.8.1 Benefits of multidisciplinary approach

For clinician:

a) Improved patient care and outcomes through the development of an agreed treatment plan.
b) Educational opportunities.
c) Improved coordination of care.
d) Streamlined treatment pathways and reduction in duplication of services.

For patient:

a) Improved satisfaction with treatment and care.
b) Improved quality of life.
c) Gets the most appropriate treatment decision made by a team of experts.

5.8.2 Case selection

Patients from the DPHSU are usually not referred to the multidisciplinary clinic. However, if the clinician encounters unique cases that require input from other dental specialists, such cases may be brought forward to multidisciplinary clinic for further evaluation.

5.8.3 Schedule

DPHS are encouraged to be involved in the multidisciplinary clinic session according to the existing schedule prepared by other specialties. If necessary, DPHSU can organise a multidisciplinary clinic based on local needs and demands.

06

DATA MANAGEMENT

6. DATA MANAGEMENT

Data management is the comprehensive process of collecting, organising, storing, and maintaining data to ensure its accessibility, reliability, and usability for operational purposes. Managing patients in DPHSU encompasses overseeing and coordinating comprehensive oral health services for individuals which range from screening and assessment, clinical prevention, promotion, behavioural modification, or a combination of approaches, depending on the need. Patient data should be managed in a highly organised and systematic manner.

6.1 Patient Data Management

Patient data is recorded in the following forms according to the categories of patient registration, oral health and assessment, high-risk habits and diet counselling.

6.1.1 Patient Registration

a. Daftar Kehadiran Harian Pesakit Warganegara/ Bukan Warganegara – PG 101B (Pind. 1/2022)
b. Referral Form – Lampiran DPHS 1

6.1.2 Oral Health Screening and Assessment

a. Dental treatment card
    i. L.P.8-2 Pin8/2019
    ii. L.P.8-1 Pin8/2019
b. Consent form and Patient Information Sheet (PIS)
c. Risk Assessment
    i. Caries Risk Assessment form - PRK[UPPKA.2018]
    ii. Plaque score - PS[UPPKA.2020]
    iii. Saliva test - RK[UPPKA.2022]
c. Dental Anxiety Management
    i. Malay-Modified Child Dental Anxiety (M-MCDAS) - Age 4-16
    ii. Malay-Modified Dental Anxiety Scale (M-MDAS) - Age 16 and above

d. Oral Health Literacy Questionnaire (OHLS-M-Q18)
e. Borang Ringkasan Klinikal - RK[UPPKA.2022]
f. Family Wellness Program - KKPK(UPPKA.2024)

6.1.3 High Risk Habits

a. Smoking
    i. Borang Berhenti Merokok T1, T2, T3, & T4 - BM[UPPKA.2022]
    ii. Fagerstrom Test for Nicotine Dependence (FTND) Form - BM[UPPKA.2022]
    iii. Borang Ringkasan Klinikal - RK[UPPKA.2022]
    viii. Record
        - Reten Bulanan Perkhidmatan Berhenti Merokok Unit Pakar Pergigian Kesihatan Awam - KBM[UPPKA.2025]
        - Reten Kohort Pesakit Berhenti Merokok Unit Pakar Pergigian Kesihatan Awam - KBMK[UPPKA.2025]
b. Betel quid chewing
    i. L.P.8-2 Pin8/2019
    ii. L.P.8-1 Pin8/2019
c. Excessive alcohol consumption
    i. AUDIT-C form
    ii. AUDIT-10 form

6.1.4 Diet Counselling

a. Diet diary form - DP[UPPKA.2024]
b. Caries Risk Assessment form - PRK[UPPKA.2018]
c. Borang Ringkasan Klinikal - RK[UPPKA.2022]
d. Borang Penilaian Pesakit Perkhidmatan Kaunseling Diet PKD - [UPPKA.2024] Form 1 & 2

6.2 Reporting and Documentation

Reporting and documentation involve the accurate and timely recording of patient information, treatment details, and outcomes. This process ensures clear communication among healthcare providers and supports continuity of treatment and services. All reporting will be conducted online through dental information system.

6.2.1 Reporting by Oral Health Personnel

i. Oral health personnel shall record daily clinical data in the online dental information system.
ii. Monthly clinical data can be generated from the online dental information system using the PG 201 UPPKA (Laporan Bulanan Bagi Perkhidmatan Unit Pakar Pergigian Kesihatan Awam) report **(Appendix 31)**.
iii. The data will be monitored online at district, state and national level.

07

MONITORING AND EVALUATION

7. Monitoring and Evaluation

A coordinator from the DPHS (preferably the state DPHS head) shall be appointed by the respective State Deputy Director of Health (Oral Health) or Institution Director to monitor the activities in the DPHSU and assess the magnitude of success. Continuous monitoring will be conducted through Technical/Achievement Meetings at the district and state levels to ensure that the unit is effectively addressing public health goals, identifying areas for improvement, and maintaining the quality of dental services provided to the community. Evaluation can be carried out using specified process and outcome indicators, which can be monitored throughout the year from January to December.

7.1 Process Evaluation

Process evaluation examines how a programme or service is implemented, assessing its activities, procedures, and adherence to planned objectives to ensure effectiveness. The suggested indicators for process evaluation are provided in **Table 7.1** and may be reviewed periodically.

Table 7.1: Indicators for process evaluation

No	Indicator	Numerator	Denominator	Data source
1	Total number of new cases	-	-	PG 201 UPPKA
2	Total number of oral health education conducted	-	-	
3	Total number of diet counselling conducted	-	-	
4	Total number of high-risk habit intervention conducted (smoking, vaping, betel nut use, alcohol consumption)	-	-	
5	Total number of dental anxiety intervention conducted	-	-	
6	Total number of clinical preventive treatment rendered (prophylaxis, FV, Calcium Phosphate, FS, PRR and SDF)	-	-	
7	Total number of dental restorations	-	-	
8	Total number of dental scaling	-	-	
9	Total number of dental extractions	-	-	

7.2 Outcome Evaluation

Outcome evaluation assesses the overall effectiveness of an activity or intervention in achieving its intended outcomes. The recommended indicators for outcome evaluation are listed in **Table 7.2** and are subject to periodic review.

Table 7.2: Indicators for outcome evaluation

No	Indicator	Numerator	Denominator	Data source
1	Percentage of patients who showed plaque score improvement within three (3) months	Number of patients who showed plaque score improvement (before brushing) within three (3) months (plaque scores below 20%)	Total number of patients with moderate and poor oral hygiene (plaque score > 50%)	PG 201 UPPKA KBMK [UPPKA.2025]
2	Percentage of patients who showed reduction in daily sugar intake frequency within three (3) months	Number of patients who showed reduction in daily sugar intake frequency within three (3) months	Total number of patients with high daily sugar intake frequency	
3	Percentage of patients who remained smoke free for a minimum of 6 months	Total number of patients who remained smoke free for a minimum of 6 months	Total number of patients with a quit date within 6 months	
4	Percentage of patients who remained vape free for a minimum of 6 months	Total number of patients who remained vape free for a minimum of 6 months	Total number of patients with a quit date within 6 months	
5	Percentage of patients who stopped using betel quid/ alcohol for a minimum of 6 months	Total number of patients who stopped using betel quid/ alcohol for a minimum of 6 months	Total number of patients with a quit date within 6 months	
6	Percentage of patients who showed a decrease in the Dental Anxiety assessment score after intervention	Number of patients who showed low anxiety level in Dental Anxiety assessment score after intervention	Total number of patients with moderate to severe anxiety level in Dental Anxiety assessment score	
7	Percentage of patients who showed an increase in Oral Health Literacy scores after intervention.	Number of patients who showed increase in Oral Health Literacy scores after intervention	Total number of referral cases	
8	Percentage of complete cases.	Number of complete cases	Total number of referral cases	

08

RESOURCE MANAGEMENT

8. RESOURCE MANAGEMENT

A dedicated, qualified, functional, well-resourced and accountable oral health unit should be established or reinforced at DPHSU. Thus, it is essential to expand financial, technical and human resource support for more coordinated DPHSU action on delivering oral health services.

8.1 Facilities, Equipment and Assets

The DPHSU will be operated as a non-hospital-based specialist clinic and can be located at the Dental Specialist Centre, Dental Specialist Clinic and primary dental clinic.

8.1.1 DPHSU in Dental Specialist Centre

The DPHSU in the Dental Specialist Centre will be equipped with two (2) dental surgeries (one surgery for DPHS and the other for the dental officer), a counselling room, and a skills laboratory. The specifications for each room can be found in the **Appendix 32.**

8.1.2 DPHSU in Dental Specialist Clinic

The DPHSU in Dental Specialist Clinic will be equipped with two (2) dental surgeries (one surgery for DPHS and the other for the dental officer), and a counselling room. The specifications for each room can be found in the **Appendix 33.**

8.1.3 DPHSU in Primary Oral Healthcare (Type 1 and 2 Health Clinic)

The DPHSU in primary oral health care will be equipped with one dental surgery and a counselling room. The specifications for each room can be found in the **Appendix 34.**

8.1.4 Dental Equipment and Assets

To maximise the capacity for delivering oral health care services in DPHSU, the clinic must be equipped with the following assets:

i. Medical equipment
ii. Non-medical equipment
iii. General equipment
iv. Oral health promotion equipment

All medical and non-medical assets must be properly registered and regularly maintained. The list of medical equipment, non-medical equipment, general equipment, oral health promotion material and dental materials are available in the **Appendix 35**.

8.2 Human Resource Management

The oral health personnel in DPHSU must align with the principles and norms set by the Malaysian Ministry of Health. An organisational chart illustrating the areas of responsibility, span of control, and hierarchy of authority within DPHSU must be developed. Additionally, a function chart outlining the specific roles and responsibilities for each function or activity within DPHSU should be created. Consequently, the human resource requirements for DPHSU are location-specific (dental specialist centre, dental specialist clinic, and dental clinic), with further details available in the Guidelines for the Implementation of the Dental Public Health Specialist Unit.[2]

8.3 Budgeting and Financial Management

Budgeting and financial management in a DPHSU are crucial for ensuring effective operation and sustainability while providing quality care to patients. Budget Planning begins by creating a comprehensive budget that includes all anticipated expenses. This should cover costs such as claims, utilities, transportation, equipment

maintenance, services, assets, training, and dental supplies and materials. It is important to perform regular review and refine budgeting and financial management processes to adapt to changing circumstances and improve overall efficiency. Financial management in DPHSU should be comprehensive and encompass the following:

- Annual budget requests
- Mid-term reviews
- Needs assessment
- Procurement of assets and supplies
- Store management
- Asset disposal
- Repair and maintenance of assets
- Upgrading/renovation of facilities

09

TRAINING AND PROFESSIONAL DEVELOPMENT

9. TRAINING AND PROFESSIONAL DEVELOPMENT

Human capital is a crucial factor in driving a unit's success. Investing in human capital creates skilled and strategic oral health personnel that continuously improve performance that can result in a future-proof service-based organisation. Recognising the importance of human resource development in DPHSU, each oral health personnel must develop the necessary attitudes, skills, and knowledge through a structured programme focused on competency development and continuous learning, including Sub-specialty training, Advance Competency Programme and Area of Special Interest.

Through collaborations with local universities, DPHSU may provide training or attachment opportunities for postgraduate DPH students. Additionally, prospective candidates pursuing specialisation in Dental Public Health will have access to a preparatory programme through DPHSU.

Self-development refers to the improvements of skills, abilities, and occupations that may be attained by practising knowledge, exposure to new ideas and experiences, as well as training and mentoring. Thus, several potential trainings that can be conducted in the DPHSU are as follows:

i. Motivational Interviewing
i. Cognitive Behavioural Therapy
ii. Behavioural Modification
iii. Certified Smoking Cessation Service Provider (CSCSP)
iv. Risk Management: Principles & Guidelines
v. Clinical Preventive Treatment
vi. Dental Biofilm
vii. Fluoride in Dentistry
viii. Minimal Intervention
ix. Research Methodology
x. Basic and Advance Biostatistics
xi. Organisational Communication Skills
xii. Leadership Fundamental & Managing Change
xiii. Organisational Governance
xiv. Dental Anxiety
xv. Oral Health Literacy
xvi. Clinical Audit
xvii. Medical Updates /Basic Life Support/ Advanced Trauma Life Support

xviii. High Risk Habits (Alcohol Addiction/Betel Quid Chewing)
xix. Caries Risk Assessment
xx. Diet Analysis
xxi. Family Wellness Concept
xxii. Sugar and Oral Health
xxiii. Oral Health Education
xxiv. Artificial Intelligence in Dentistry
xxv. Oral Health Marketing

10

RESEARCH INITIATIVES

10. RESEARCH INITIATIVES

There is an urgent need to provide meaningful evidence and strategies to enhance oral health care nationwide, as dental diseases are among the most common in the globe and the whole treatment burden is rising. Therefore, one of the key roles of the DPHSU is to serve as a stop centre in promoting, supporting and overseeing the implementation of research by oral health personnel.

10.1 Research Activities

Research activities in DPHSU focus on improving clinical practices and developing innovative treatments to enhance oral health outcomes and patient care. DPHS can provide expertise and coordinate research through smart partnership with various stakeholders. In addition, collaborate with the clinical research centre in providing research training such as research ethics, clinical trial methods, research methodology, biostatistics introductory workshop, good clinical practice and high-impact research. The scope of research activities in the DPHSU may include the following:

- Epidemiological Studies – Assessing the prevalence and risk factors of oral diseases within the patient population.
- Clinical Research – Evaluating new treatment modalities, materials, and technologies to improve patient care.
- Quality Improvement Studies – Analysing clinical workflows, patient satisfaction, and treatment outcomes to enhance service delivery.
- Preventive Research – Investigating the effectiveness of preventive interventions such as fluoride applications, sealants, and patient education programmes.
- Health Services Research – Examining accessibility, efficiency, and cost-effectiveness of dental services.
- Behavioural and Public Health Studies – Understanding patient behaviours, adherence to oral hygiene practices, and the impact of educational initiatives.

- Collaborative Research – Partnering with universities, research centres, and other healthcare institutions to conduct multidisciplinary studies.

Potential research areas that may be pursued are detailed within the National Oral Health Research Initiatives (NOHRI) guidebook.[103] Researchers are encouraged to refer to this resource for guidance on suitable topics and methodologies.

10.2 Research Consultation

DPHSU offers research consultation services provided by DPHS to assist investigators/researchers in their research projects. The research consultation services include:

i. Proposal development
ii. Studt design
iii. Ethical consideration
iv. Tools development
v. Data collection and analysis
vi. Manuscript writing
vii. Dissemination of research finding – oral/poster presentation
viii. Publication strategies
ix. Monitor of the research progress

[103] Oral Health Programme, Ministry of Health Malaysia, 2023. Oral Health Research Priorities in Malaysia. e ISBN 978-629-98561-3-9 MOH Number: MOH/K/GIG/4-2023(BK).

11

CONCLUSION

11. CONCLUSION

The document has outlined the essential principles guiding the operations of the Dental Public Health Specialist Unit. These include a commitment to oral health screening and assessment, behavioural modification, clinical preventive treatments, data and resource management, the importance of continuous professional development, and patient-centred approaches that ensure equitable and high-quality oral health services for the community.

The effective functioning of the DPHSU relies on strong interdisciplinary collaboration among dental public health specialists, dental officers and support staff. The document emphasises the need for clear communication, shared goals, and ongoing cooperation to meet the unit's objectives and improve overall public health outcomes.

It is a necessity for the DPHSU to remain adaptive to emerging public health challenges and advancements in dental care. Regular reviews and updates of the operational procedures are essential to maintaining relevance and effectiveness in addressing the oral health needs of the population.

12

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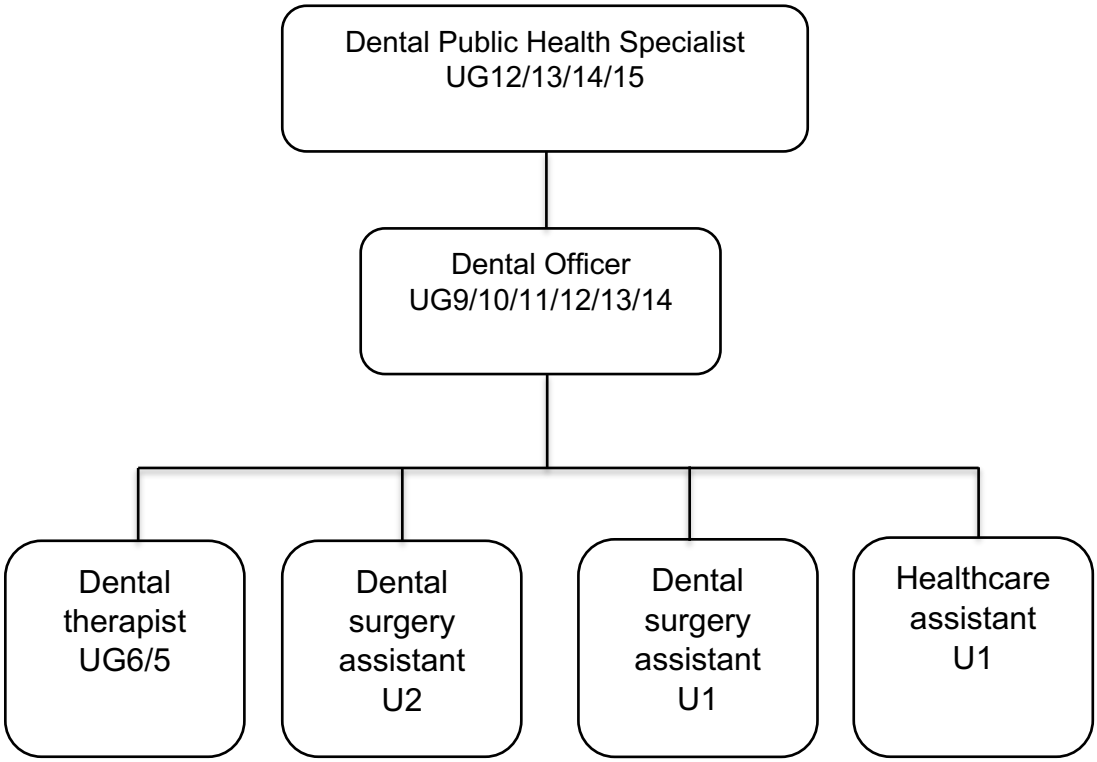
APPENDICES

Appendix 1

ORGANISATIONAL CHART FOR DPHSU IN DENTAL SPECIALIST CENTRE / CLINIC (NON-HOSPITAL BASED) / PRIMARY DENTAL CLINIC



Appendix 2

Lampiran DPHS1

BORANG RUJUKAN PESAKIT KE UNIT PAKAR PERGIGIAN KESIHATAN AWAM

Nama Pesakit:	
No. Kad Pengenalan:	Umur:
Jantina: ☐ Lelaki ☐ Perempuan	
No. Tel. Pesakit:	Tarikh Rujukan:

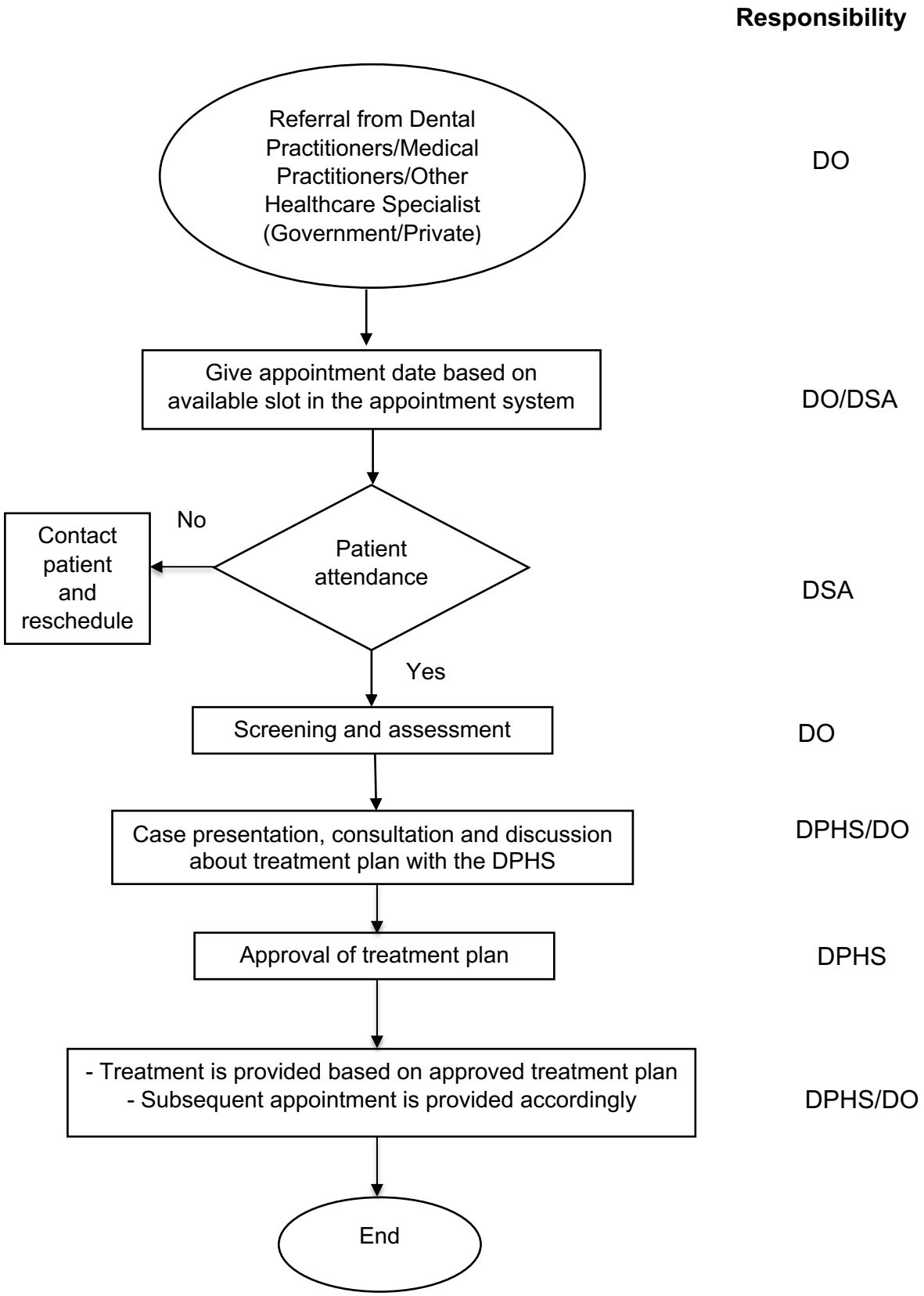
Sejarah Perubatan:	
Sejarah Pergigian:	
Penilaian Risiko Karies:	☐ Rendah ☐ Sederhana ☐ Tinggi
Gingival Index Score (pesakit berumur < 15 tahun)	☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐TB
Basic Periodontal Examination (pesakit berumur ≥ 15 tahun)	☐ 0 ☐ 1 ☐ 2 ☐3 ☐4 ☐* ☐TB
Individu Berisiko Tinggi:	☐ Merokok/Vape/Shisha ☐ Pengambilan Alkohol ☐ Mengunyah sirih/buah pinang ☐ Dental anxiety ☐ Pesakit fasa pengekalan (maintenance) ☐ Lain-lain (Sila nyatakan):
Program *Family Wellness* (rujukan ahli keluarga terdekat)	☐ Ya ☐ Tidak
Catatan	

Tandatangan:	
Nama Pegawai:	Cop Klinik:

Referral Criteria to the DPHSU

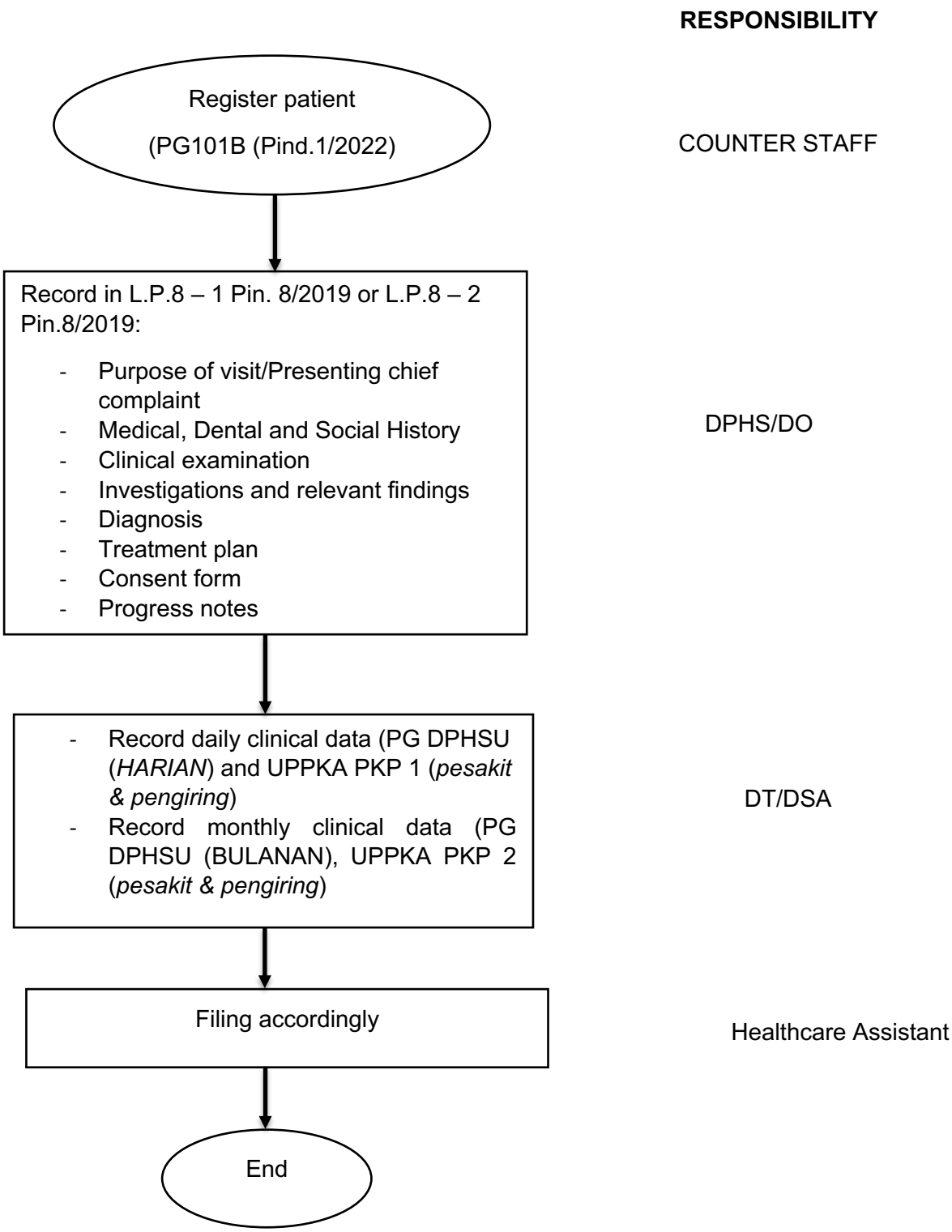
No.	Patient category	Criteria
1	Toddler	Caries Risk Assessment (CRA) categorized as high after three (3) consecutive visits of intervention by primary oral healthcare
2	Preschool Children	i.Caries Risk Assessment (CRA) categorized as high after three consecutive visits of intervention: - Risk factors ≥1 with caries code 1 - Risk factors ≥3 with caries code E ii. Gingival health with GIS=3 after 3 consecutive visits with intervention
3	Schoolchildren	i.Caries Risk Assessment (CRA) categorized as high after three consecutive visits of intervention -Risk factors ≥1 with caries code 1 -Risk factors ≥3 with caries code E ii.Gingival health with GIS=3 after 3 consecutive visits with intervention iii.Unable to maintain the status of No Treatment Required (NTR) for three (3) consecutive years iv.Contemplating phase after 3 failed interventions (KOTAK programme)
4	Young adult Adult Antenatal mother Geriatric	i.Caries Risk Assessment (CRA) categorized as high after three consecutive visits of intervention: -Risk factors ≥1 with caries code 1 -Risk factors ≥3 with caries code E ii.Patient with high-risk behaviours such as smoking, vaping, betel quid chewing, alcohol consumption and other high-risk habits iii.BPE score = 3 (without underlying medical problems) after three (3) consecutive visits of intervention at primary oral healthcare setting
5	Referral from other Dental Specialties	Patient referred from other dental specialties requiring maintenance phase (oral hygiene and diet) and high-risk habits modification *High risk patients can be referred to the DPHSU while still under active treatment
6	Others	Patient with dental anxiety

FLOW CHART FOR APPOINTMENT SCHEDULING IN DPHSU



Appendix 4

FLOW CHART FOR PATIENT REGISTRATION AND RECORDS



Appendix 5

KKPK[UPPKA.2024]

BORANG PERSETUJUAN PROGRAM KESEJAHTERAAN KELUARGA (FAMILY WELLNESS)

Konsep kesejahteraan keluarga dalam kesihatan mulut memberi tumpuan kepada menjaga dan meningkatkan kesihatan mulut yang baik untuk semua ahli keluarga, dari kanak-kanak hingga orang dewasa. Ia memastikan semua orang mendapat rawatan pencegahan, pendidikan kesihatan mulut, dan rawatan yang diperlukan untuk menyokong kesihatan keseluruhan mereka. Dalam konsep ini, individu yang berisiko tinggi akan dikenal pasti, dan pendekatan menyeluruh digunakan untuk mengesan dan menilai ahli keluarga mereka yang juga mungkin berisiko tinggi.

Saya Pesakit/Penjaga bernama _____ dengan No. Kad Pengenalan: _____telah diberi penerangan berkaitan Program Kesejahteraan Keluarga (Family Wellness) dan **bersetuju** untuk menyertai program ini bersama dengan ahli keluarga seperti berikut:

Bil.	Nama	No Kad Pengenalan
1		
2		
3		
4		
5		
6		

Tandatangan Pesakit/Penjaga:

_____

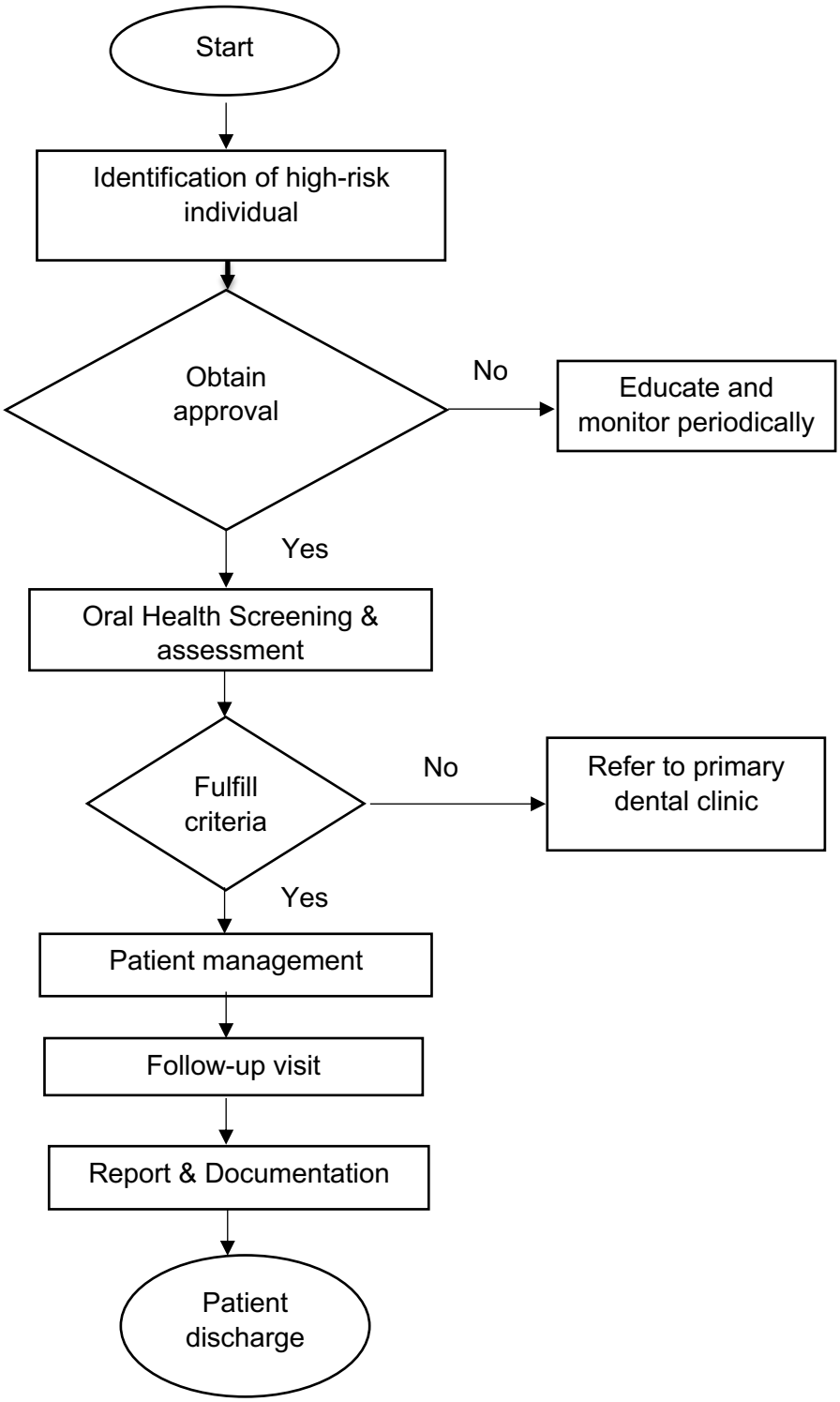
Tarikh:

Tandatangan & Nama Pegawai:

_____

Tarikh:

FLOW CHART REFERRAL OF FAMILY MEMBERS TO DPHSU



SMOKERLYZER INFECTION CONTROL PROCEDURE

When undertaking routine CO monitoring, the following precautions must be taken to reduce the risk of cross infection:

i. Washing hands before and after testing is highly recommended for both operator and user as part of a sensible infection control regime (soap and water preferred or <73.5% alcohol hand sanitiser – completely dried). Alcohol must not come in contact with the Smokerlyzer® as this can damage the sensor.
ii. Wipe the external surfaces of the instrument with a product specifically developed for this purpose
iii. Non-sterile gloves may be worn by the clinician if there is a risk of contact with blood or body fluid / respiratory droplets.
iv. Do not face the person, stand side-on. Continue to maintain physical distance where possible.
v. Perform the test in accordance with the manufacturer's instructions.
vi. At the completion of the assessment, ask the patient to remove the single-use SteriBreath™ and/or D-piece™ and dispose of one or both directly into the general waste. Clinicians may decide to store patient specific D-pieces™ into a zip lock bag labelled with patient name for 30 days during a pandemic situation.
vii. The clinician must clean the device after each use with a non-alcohol detergent cleaning wipe. Do not use cleaning solutions / wipes that contain alcohol or other organic solutions.
viii. After cleaning with detergent wipes - leave the device to air dry for a minimum of 60 seconds. Under no circumstances should the instrument be immersed in liquid or splashed with liquid.
ix. Hand hygiene must be performed following use of the device by both the clinician and the client.
x. The device must be stored away from direct patient contact when not in use.

Appendix 8

PRK[UPPKA.2018]

UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG PENILAIAN RISIKO KARIES

Nama Pesakit: _____

Umur: _____

No. Pendaftaran: _____

	A. Kesihatan Umum	Risiko Rendah	Risiko Sederhana	Risiko Tinggi
1	Pesakit berkeperluan khas (kecacatan perkembangan, fizikal, perubatan atau mental yang mencegah atau membatasi penjagaan kesihatan mulut oleh pesakit sendiri atau penjaga)	☐ Tidak	☐ Ya (14 tahun keatas)	☐ Ya (0-14 tahun)
2	Kemoterapi/Radioterapi	☐ Tidak		☐ Ya
3	Kesukaran mengunyah atau menelan makanan	☐ Tidak	☐ Ya	
4	Pengambilan ubat yang memberi kesan kepada aliran saliva	☐ Tidak	☐ Ya	
5	Pengambilan ubat/alkohol yang berlebihan	☐ Tidak	☐ Ya	
	B. Faktor Penyumbang			
6 6.1 6.2 6.3	Pendedahan kepada fluorida: Penapis air di rumah Minum dari air botol yang dikomersilkan Ubat gigi berfluorida	☐ Tidak ☐ Tidak ☐ Berfluorida (1000-1459ppm)	☐ Rendah fluorida (<500ppm)	☐Ya ☐Ya ☐Tiada fluorida
7	Makanan atau minuman bergula (termasuk jus, minuman ringan berkarbonat atau tidak berkarbonat, minuman tenaga, sirap ubat)*	☐ <3 kali/hari	☐ 3-5 kali/hari	☐ >5 kali/hari
8	Pengalaman karies ibu, pengasuh dan/atau adik beradik yang lain (untuk pesakit berumur <14 tahun)	☐ Tiada karies dalam masa 24 bulan terakhir	☐Karies dalam masa 7-24 bulan terakhir	☐Karies dalam masa 6 bulan terakhir
9	Mempunyai rekod pemeriksaan pergigian berkala	☐ Ya	☐ Tidak	
	C. Pemeriksaan Klinikal Mulut			
10	Karies *cavitated/non cavitated (incipient)* atau tampalan (dibuktikan melalui pemeriksaan/radiograf)	☐ Tiada karies/ tampalan baru dalam masa 36 bulan terakhir	☐1-2 karies/ tampalan baru dalam masa 36 bulan terakhir	☐ ≥3 karies/ tampalan baru dalam masa 36 bulan terakhir
11	Cabutan kerana karies dalam masa 36 bulan terakhir	☐ Tidak		☐ Ya
12	Plak dipermukaan gigi	☐ Tidak	☐ Ya	
13	Morfologi gigi yang menjejaskan kebersihan mulut	☐ Tidak	☐ Ya	
14	1 atau lebih tampalan *interproximal*	☐ Tidak	☐ Ya	

15	Permukaan akar gigi yang terdedah	☐ Tidak	☐ Ya	
16	Tampalan dengan *overhangs/open margins; open contacts* dengan makanan terimpak.	☐ Tidak	☐ Ya	
17	Aplians pergigian/ortodontik (tetap atau boleh tanggal)	☐ Tidak	☐ Ya	
18	Kekeringan mulut yang teruk (Xerostomia)	☐ Tidak		☐ Ya
Risiko Karies: ☐ Rendah ☐ Sederhana ☐ Tinggi Nama dan Tandatangan Pakar Pergigian/Pegawai Pergigian: Tarikh:				

Adaptasi daripada *American Dental Association, 2009*
*Perlu berpandukan dapatan daripada Saringan *24-hour Diet Recall*

PS[UPPKA.2022]

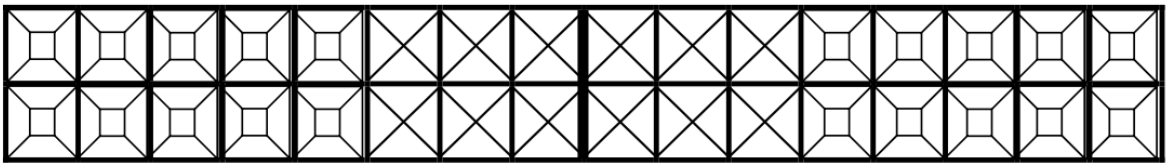
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG SKOR PLAK PERGIGIAN

Nama Pesakit :_____ **Umur :**_____

No. Pendaftaran :_____ **Nama Operator :**_____

Tarikh: _____ Sebelum / Selepas Memberus Gigi No. Lawatan: _____



Skor Plak _____ **%**

☐ **Berus gigi diberikan kepada pesakit untuk *hands-on* teknik memberus gigi**

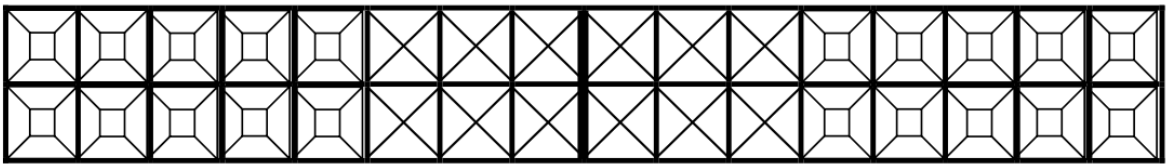
Bil. permukaan gigi dengan plak / **Jumlah bil. permukaan gigi** **X 100 = Skor Plak (%)**

Target lawatan akan datang _____ **%**

Pesakit telah diberi tunjuk ajar teknik betul menggunakan item berikut:
☐ Berus gigi biasa
☐ Flos gigi
☐ Lain-lain (nyatakan):

Tandatangan Operator : .....
Nama : .....
Tarikh : .....

Tarikh: _____ Sebelum / Selepas Memberus Gigi No. Lawatan: _____



Skor Plak _____ **%**

☐ **Berus gigi diberikan kepada pesakit untuk *hands-on* teknik memberus gigi**

Bil. permukaan gigi dengan plak / **Jumlah bil. permukaan gigi** **X 100 = Skor Plak (%)**

Target lawatan akan datang _____ **%**

Pesakit telah diberi tunjuk ajar teknik betul menggunakan item berikut:
☐ Berus gigi biasa
☐ Flos gigi
☐ Lain-lain (nyatakan):

Tandatangan Operator : .....
Nama : .....
Tarikh : .....

Graf Pemantauan Kemajuan Pencapaian Skor Plak Pergigian Pesakit:

Nama Pesakit: _____ Umur: _____

No. Siri Pendaftaran: _____ Tarikh Mula Kes: _____ Nama Operator: _____

Appendix 10

RK[UPPKA.2022]

UNIT PAKAR PERGIGIAN KESIHATAN AWAM

RINGKASAN KLINIKAL

Nama Pesakit: _____ **No Pendaftaran:** _____

Tarikh Lahir: _____ **Umur:** _____ **Jantina:**_____ **Bangsa:**_____

BAHAGIAN I

Rumusan kes:

_____
_____
_____
_____
_____
_____
_____

1. Penilaian Risiko Karies

☐ Rendah ☐ Sederhana ☐ Tinggi

2. Pemakanan Bergula (Kekerapan mengambil makanan/minuman bergula dalam satu hari)

☐ Rendah (<3 kali sehari) ☐ Sederhana (3-5 kali sehari) ☐ Tinggi (>5 kali sehari)

BAHAGIAN II

1. Rujukan daripada:

☐ Primer ☐ Pergigian Restoratif ☐ Ortodontik ☐ Pergigian Pediatrik

☐ OMFS ☐ OPOM ☐ Periodontik ☐ GDP

2. Status Kebersihan Mulut

☐ Sangat Baik (0-10%) ☐ Baik (11-25%) ☐ Memuaskan (26-50%)

☐ Tidak Memuaskan (51-80%) ☐ Sangat Tidak Memuaskan (81-100%)

3. Pengalaman Karies Gigi

d	f	dft

D	M	F	DMFT

4. Lesi Tisu Mulut

☐ Ada ☐ Tiada

Nyatakan:

_____
_____

RINGKASAN KLINIKAL

BAHAGIAN III

1. Punca masalah

☐ Tinggi pengambilan gula dalam makanan ☐ Kebersihan mulut yang tidak memuaskan ☐ Kurang upaya Nyatakan.....

☐ Penyusuan botol ☐ Lain-lain. Nyatakan: .....

2. Sasaran

☐ Skor plak bagi lawatan akan datang %

Ujian *Resting Saliva*

A. Pemerhatian

Tempoh Penghasilan Air Liur	
Rendah (>60s)	Normal (<60s)

B. Kepekatan Air liur

Increased viscosity	*Increased viscosity*	*Normal Viscosity*
Sticky frothy	*Frothy bubbly*	*Watery clear*

C. Ujian pH Air liur

<5.8 (Keasidan tinggi)	5.8-6.8 (Keasidan sederhana)	6.8-7.8 (Normal)

Ujian *Stimulated Saliva*

A. Kuantiti Air Liur

<3.5mL (Sangat rendah)	3.5-5.0 mL (Rendah)	> 5.0 mL (Normal)

B. *Buffering Capacity*

0-5 (Sangat rendah)	6-9 (Rendah)	10-12 (Normal/Tinggi)

3. Rawatan Susulan

☐ 2 minggu ☐ > 2-4 minggu ☐ Lain-lain.....

4. Pelan Rawatan :

.....

.....

.....

Tandatangan Operator: Tandatangan Pakar:

Nama Operator: Nama Pakar:

Tarikh: Tarikh:

Borang Berhenti Merokok T4

TC[UPPKA.2022]

UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG BERHENTI MEROKOK T4

Nama Pesakit: _____ No Pendaftaran: _____

Tarikh Lahir: _____ Umur: _____ Jantina:_____ Bangsa:_____

Rumusan Kes:

_____
_____
_____
_____
_____

Pelan Rawatan:

1._____
2._____
3._____
4._____
5._____

Pelan Rawatan Diluluskan oleh:

.....

Konsultasi

Tarikh	Karbon Monoksida	Skor *Fagestrom*	Tindakan Diambil (Rumusan)	Tandatangan Operator

Tarikh Kes Selesai:_____

Tandatangan Pakar Pergigian Kesihatan Awam:_____

Faces Malay-Modified Child Dental Anxiety Scale

Kod Responden ☐☐☐☐ Tarikh Lahir ☐☐/☐☐/☐☐ (H H / B B / T T)

Bangsa ☐ *(Melayu=1, Cina=2, India=3, Lain-lain, Nyatakan)*

Kod Sekolah ☐☐☐

Bulatkan nombor untuk jawapan bagi setiap soalan.

Bagaimana perasaan anda bila					
1. berjumpa doktor gigi?	1	2	3	4	5
2. gigi anda di periksa?	1	2	3	4	5
3. gigi anda dikikis dan dikilatkan?	1	2	3	4	5
4. anda mendapat suntikan pada gusi?	1	2	3	4	5
5. gigi anda ditampal?	1	2	3	4	5
6. gigi anda dicabut?	1	2	3	4	5
7. anda ditidurkan untuk membuat rawatan gigi?	1	2	3	4	5
8. anda diberi campuran gas untuk membuat anda selesa ketika rawatan tetapi anda tidak ditidurkan?	1	2	3	4	5

Appendix 13

The Malay-Modified Child Dental Anxiety Scale (M-MCDAS)

APAKAH TAHAP KERISAUAN ANDA APABILA BERJUMPA DENGAN DOKTOR GIGI

SILA ISIKAN TEMPAT KOSONG DENGAN PILIHAN JAWAPAN SEPERTI BERIKUT INI:

1 = Tidak risau 2 = Sedikit risau 3 = Agak risau 4 = Sangat risau 5 = Terlalu risau						
1.	Jika anda perlu berjumpa dengan doktor gigi untuk RAWATAN PADA ESOK HARI, bagaimanakah perasaan anda?	1	2	3	4	5
2.	Jika anda berada di BILIK MENUNGGU (menanti untuk rawatan), bagaimanakah perasaan anda?	1	2	3	4	5
3.	Jika gigi anda perlu DIKOREK DENGAN ALAT GERUDI, bagaimanakah perasaan anda	1	2	3	4	5
4.	Jika gigi anda perlu DIKIKIS DAN DIKILATKAN ("SCALING AND POLISHING"), bagaimanakah perasaan anda	1	2	3	4	5
5.	Jika anda PERLU DIBERI suntikan bius pada gusi gigi geraham atas, bagaimanakah perasaan anda?	1	2	3	4	5

Jumlah permakahan adalah hasil tambah kesemua soalan, (lingkungan 5 – 25), bagi markah 19 atau keatas, ini menunjukkan pesakit itu mungkin mengalami fobia.

SOAL SELIDIK LITERASI KESIHATAN PERGIGIAN (OHLQ)/ *ORAL HEALTH LITERACY QUESTIONNAIRE (OHLS-M-Q18)*

Sila tandakan (√) pada kotak yang bersesuaian/ *Please tick (√) in the appropriate box.*

Pada skala dari 'sangat sukar' ke 'sangat mudah', nilaikan betapa mudahnya anda: *On a scale from "very difficult" to "very easy", evaluate how easy it is for you:*		Sangat sukar/ *Very difficult*	Agak sukar/ *Fairly difficult*	Agak mudah/ *Fairly easy*	Sangat mudah/ *Very easy*
1.	... memahami arahan/garis panduan penggunaan ubat-ubatan yang diberikan di klinik pergigian? ... *understand the instructions / guidelines for the use of medicines given at the dental clinic?*				
2.	... memahami apa yang perlu dilakukan sekiranya berlaku kecemasan pergigian? (Contoh: pendarahan berterusan selepas gigi dicabut, gigi patah/ tertanggal akibat jatuh) *... understand what to do in the event of a dental emergency? (Examples: continuous bleeding after extraction, broken/ avulsed tooth due to fall)*				
3.	... menilai bagaimana maklumat daripada doktor gigi dapat diikuti/ diaplikasikan kepada diri anda? *... evaluate how the information from the dentist can be use/apply to you?*				
4.	... menilai keperluan untuk mendapatkan pandangan kedua daripada doktor gigi yang lain? *... evaluate the need to get a second opinion from another dentist?*				
5.	... mendapatkan rawatan segera di klinik / hospital ketika kecemasan pergigian berlaku? (Contohnya: pendarahan berterusan selepas gigi dicabut, gigi patah/ tertanggal akibat jatuh) *... get immediate care at the clinic/ hospital when a dental emergency occurs? (Examples: continuous bleeding after extraction, broken/ avulsed tooth due to fall)*				
6.	… mengikut arahan doktor gigi atau kakitangan kesihatan pergigian di klinik pergigian?				

Pada skala dari 'sangat sukar' ke 'sangat mudah', nilaikan betapa mudahnya anda: *On a scale from "very difficult" to "very easy", evaluate how easy it is for you:*		Sangat sukar/ *Very difficult*	Agak sukar/ *Fairly difficult*	Agak mudah/ *Fairly easy*	Sangat mudah/ *Very easy*
	… follow the dentist's or dental health personnel's instructions given at the dental clinic?				
7.	... mencari maklumat tentang cara untuk mencegah masalah pergigian seperti kerosakan gigi atau masalah gusi? *... find information on how to prevent oral problems such as tooth decay or gum disease?*				
8.	… memahami maklumat kesihatan pergigian tentang tabiat tidak sihat seperti merokok, pengambilan gula yang berlebihan dan tidak menggosok gigi? *… understand the oral health information about unhealthy habits such as smoking, excessive sugar intake, and not brushing your teeth?*				
9.	... mencari maklumat mengenai pemeriksaan dan saringan kesihatan pergigian (contoh: saringan kanser mulut, pemeriksaan gigi dan gusi) yang anda perlukan? *... find the information regarding oral health examinations and screenings (e.g., oral cancer screenings, teeth and gum examination) that you need?*				
10.	… memahami mengapa anda memerlukan saringan kesihatan pergigian (contoh: saringan kanser mulut, pemeriksaan gigi dan gusi)? *… understand why you need oral health screening (e.g., oral cancer screening, teeth and gum examination)?*				
11.	… menilai saringan kesihatan pergigian (contoh: saringan kanser mulut, pemeriksaan gigi dan gusi) yang anda perlukan? *… evaluate oral health screening (e.g., oral cancer screening, teeth and gum examination) that you need?*				
12.	... menilai keperluan berjumpa doktor gigi untuk pemeriksaan kesihatan pergigian? *... evaluate the need to see a dentist for an oral health examination?*				

Pada skala dari 'sangat sukar' ke 'sangat mudah', nilaikan betapa mudahnya anda: *On a scale from "very difficult" to "very easy", evaluate how easy it is for you:*		Sangat sukar/ *Very difficult*	Agak sukar/ *Fairly difficult*	Agak mudah/ *Fairly easy*	Sangat mudah/ *Very easy*
13.	... memahami nasihat kesihatan pergigian daripada ahli keluarga atau kawan-kawan? *... understand the oral health advice from family members or friends?*				
14.	… memahami maklumat yang didapati di media (contoh: laman web, media sosial, majalah) untuk mencapai kesihatan pergigian yang lebih baik? *… understand the information available from the media (example: websites, social media, magazines) to achieve better oral health?*				
15.	… menilai bagaimana persekitaran kehidupan anda (contoh: berdekatan dengan klinik pergigian, ketersediaan air bersih) mempengaruhi kesihatan pergigian anda? *… evaluate how your living environment (e.g., proximity to a dental clinic, availability of clean water) influences your oral health?*				
16.	… menilai bagaimana keadaan rumah anda akan menyumbang kepada kesihatan pergigian anda (contoh: ketersediaan air bersih, cermin atau sinki di bilik air)? *… evaluate how your home condition contributes to your oral health (e.g., availability of clean water, a mirror, or a sink in the bathroom)?*				
17.	… membuat keputusan untuk memperbaiki kesihatan pergigian anda? *… make decision to improve your oral health?*				
18.	… mengambil bahagian dalam aktiviti komuniti yang boleh menambah baik kesihatan pergigian dan kesejahteraan anda? *… participate in community activities that can improve your oral health and well-being?*				

INTERPRETATION OF OHLS-M-Q18 INDEX

1. Overview of OHLS-M-Q18

The Oral Health Literacy Scale – Malay version (OHLS-M-Q18) is a validated tool designed to assess oral health literacy among the Malaysian population. It consists of 18 items; each scored on a 4-point Likert scale:

1 = Very difficult
2 = Fairly difficult
3 = Fairly easy
4 = Very easy

These items assess an individual's ability to obtain, process, and understand essential oral health information needed to make appropriate health decisions.

2. Domain Classification of Items

A) Healthcare
Items: 1, 2, 3, 4, 5, 6

B) Disease Prevention
Items: 7, 8, 9, 10, 11, 12

C) Health Promotion
Items: 13, 14, 15, 16, 17, 18

3. Steps for Index Calculation

Step 1: Calculate Total Score
Add the scores of all 18 items. Possible total score range is 18 to 72.

Step 2: Calculate Mean Score
Mean Score = Total Score ÷ 18

Step 3: Calculate Oral Health Literacy Index
Index = (Mean Score − 1) × (50 ÷ 3)

This formula transforms the 1–4 score range into a 0–50 index scale, where:
Mean = 1 → Index = 0
Mean = 4 → Index = 50

4. Interpretation of Index Score

Index Range	Oral Health Literacy Level	Interpretation
0–25	Inadequate	▪ Difficulty understanding basic oral health information and instructions. ▪ Cannot confidently follow dental advice or make informed decisions. ▪ Likely to misunderstand medication labels, appointment instructions, or post-operative care guidelines. ▪ High risk of poor oral health outcomes.
26–32	Problematic (Marginal)	▪ Can understand some dental information, especially if it's presented clearly. ▪ May struggle with complex terminology, treatment options, or navigating the healthcare system. ▪ Needs support or further explanation for some tasks or decisions. ▪ Moderate ability to manage oral health independently.
33–50	Sufficient	▪ Can easily understand, evaluate, and apply oral health information. ▪ Capable of making informed decisions about preventive care, treatment, and emergency responses. ▪ Actively engages with dental care services and maintains good oral hygiene practices. ▪ Lower risk of miscommunication or misunderstanding of oral health information.

Note: An index score below 33 is considered limited oral health literacy.

5. Optional: Domain-Specific Index Calculation

To assess specific strengths or weaknesses in each domain:

- Sum the scores for the 6 items in each domain.
- Divide by 6 to get the domain mean score.
- Apply the same formula:
  Domain Index = (Domain Mean − 1) × (50 ÷ 3)

6. Reporting Example

"The respondent's total score on the OHLS-M-Q18 was 57. This gives a mean score of 3.17 and an index of 36.1. Based on this, the respondent is categorised as having sufficient oral health literacy."

Appendix 15

Diari Pemakanan DP[UPPKA.2024]

DP[UPPKA.2024]
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

DIARI PEMAKANAN

Nama Pesakit : ______________________________________ Umur :________________

No. Pendaftaran : ______________________ Nama Operator : ______________________

Tarikh:	**Tarikh:**	**Tarikh:**	**Tarikh:**
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:	Makanan/minuman/snek Masa:
Air kosong sahaja :	Air kosong sahaja:	Air kosong sahaja:	Air kosong sahaja:

*****Data diambil pada mana-mana **2 hari bekerja/bersekolah dan 2 hari di cuti mingguan**

Keputusan Analisa Diari Pemakanan:

Purata kekerapan makanan/minuman bergula/manis dalam sehari :___________________________kali

Purata anggaran pengambilan gula sehari:___________________ gram/_________________ sudu teh

Lain-lain penemuan:____

Panduan Analisa Pengambilan Jumlah Gula (*Free Sugar*) Harian

Had pengambilan gula (*free sugar*) yang disarankan oleh Pertubuhan Kesihatan Sedunia, WHO adalah tidak melebihi 10% (saranan kukuh) dan 5% (saranan bersyarat) dari jumlah keperluan tenaga harian. **Jadual 1** menunjukkan pengambilan gula maksimum berdasarkan keperluan tenaga harian disyorkan dalam RNI (*Reference Nutrient Intake*) 2017 oleh Kementerian Kesihatan Malaysia, KKM:-

Jadual 1: Had pengambilan gula harian mengikut keperluan tenaga harian

Kumpulan	Keperluan Tenaga Harian (K.T.H.) (kcal/hari)	Saranan Had Pengambilan Maksimum Gula Sehari 10% dari K.T.H.		Saranan Had Pengambilan Maksimum Gula Sehari 5% dari K.T.H.	
		kcal	gram	kcal	gram
Kanak-kanak					
1-3 tahun	900	90	22.5	45	11.3
4-6 tahun	1,380	138	34.5	69	17.3
7-9 tahun	1,610	161	40.3	80.5	20.1
Remaja					
10-12 tahun	1,710	171	42.8	85.5	21.4
13-15 tahun	1,810	181	45.3	90.5	22.6
16-18 tahun	1,890	189	47.3	94.5	23.6
Dewasa dan Warga Emas					
19-29 tahun (lelaki)	2,240	224	56	112	28
19-29 tahun (wanita)	1,840	184	46	92	23
30-59 tahun (lelaki)	2,190	219	54.8	109.5	27.4
30-59 tahun (wanita)	1,900	190	47.5	95	23.8
≥ 60 tahun (lelaki)	2,030	203	50.8	101.5	25.4
≥ 60 tahun (wanita)	1,770	177	44.3	88.5	22.1
Wanita Hamil					
Trimester 1	1,920 – 1,940	192 - 194	48 - 48.5	96 – 97	24 – 24.3
Trimester 2	2,120 – 2,140	212 - 214	53 - 53.5	106 – 107	26.5 – 26.3
Trimester 3	2,310 – 2,330	231 - 233	57.8 - 58.3	115.5 - 116.5	28.9 – 29.1
Wanita Menyusu					
6 bulan pertama	2,340 – 2,360	234 - 236	58.5-6	117 – 118	29.3 – 29.5
Atlet	Berbeza mengikut tahap aktiviti. Keperluan tenaga lebih tinggi disebabkan oleh aktiviti fizikal yang meningkat, sering melebihi 3,000 kcal/hari bagi sesetengah individu.				

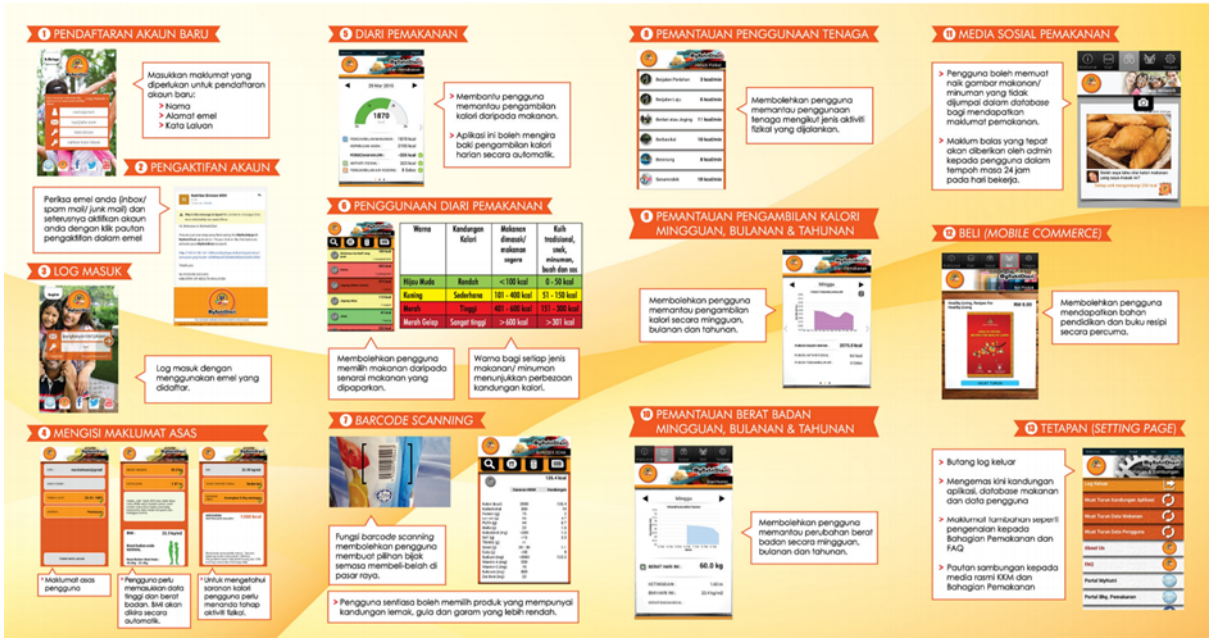
- Keperluan tenaga bagi atlet berbeza bergantung pada tahap, intensiti, dan tempoh aktiviti.
- Pengambilan gula dikira sebagai 10% daripada jumlah keperluan tenaga dan ditukar kepada gram (1 gram gula memberikan 4 kcal).
- 5g bersamaan dengan 1 sudu teh gula. Pengambilan gula harian boleh dianggarkan berdasarkan rekod diari pemakanan pesakit dan dibandingkan dengan pengambilan yang disyorkan.

Kesimpulan (Tandakan /):

	Pesakit **melebihi** had saranan pengambilan gula sehari	Nama & Tandatangan Operator:
	Pesakit **tidak melebihi** had saranan pengambilan gula sehari	Tarikh:

2

MyNutriDiari 2



Appendix 17

Borang Penilaian Pesakit Perkhidmatan Kaunseling Diet UPPKA PKD1

PKD1[UPPKA.2024]

BORANG PENILAIAN PESAKIT PERKHIDMATAN KAUNSELING DIET
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

Nama Pesakit : _____ Umur :_____No. Pendaftaran : _____

Sejarah perubatan/pergigian:_____

1. Pemeriksaan:

Jenis Pemeriksaan	Tarikh	BP (mmHg)	BMI (kg/m2)	Keputusan Penilaian Risiko Karies	Keputusan Buffer Saliva Kit	Kekerapan makan/minum bergula sehari	Nama & T.tangan Pegawai
Lawatan Pertama			Tinggi: _____m Berat : _____kg BMI : _____	☐ Tinggi ☐ Sederhana ☐ Rendah	Tahap Hidrasi: _____ Bacaan pH: _____	☐ <3 kali ☐ 3-5 kali ☐ >5 kali Anggaran gula:_____(g)	

2. Lain-lain penemuan:_____
3. Punca Masalah:
   _____
   _____
   _____
   _____
4. Pelan Rawatan:
   _____
   _____
   _____
   _____

Nama & Tandatangan Operator:_____

Borang Penilaian Pesakit Perkhidmatan Kaunseling Diet UPPKA PKD2

PKD2[UPPKA.2024]

BORANG PENILAIAN PESAKIT PERKHIDMATAN KAUNSELING DIET
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

Nama Pesakit : _____ Umur :_____No. Pendaftaran : _____

Keputusan tindak susul selepas lawatan pertama:

Jenis Pemeriksaan	Tarikh	BP (mmHg)	BMI (kg/m2)	Keputusan Penilaian Risiko Karies	Keputusan Buffer Saliva Kit	Kekerapan makan/minum bergula sehari	Nama & T.tangan Pegawai
Lawatan Susulan			Tinggi: _____m Berat : _____kg BMI : _____	☐ Tinggi ☐ Sederhana ☐ Rendah	Tahap Hidrasi: _____ Bacaan pH: _____	☐ <3 kali ☐ 3-5 kali ☐ >5 kali Anggaran gula:_____(g)	
			Tinggi: _____m Berat : _____kg BMI : _____	☐ Tinggi ☐ Sederhana ☐ Rendah	Tahap Hidrasi: _____ Bacaan pH: _____	☐ <3 kali ☐ 3-5 kali ☐ >5 kali Anggaran gula:_____(g)	
			Tinggi: _____m Berat : _____kg BMI : _____	☐ Tinggi ☐ Sederhana ☐ Rendah	Tahap Hidrasi: _____ Bacaan pH: _____	☐ <3 kali ☐ 3-5 kali ☐ >5 kali Anggaran gula:_____(g)	

Borang Penilaian Pesakit Perkhidmatan Kaunseling Diet UPPKA PKD2 (Continued)

Rumusan pencapaian pesakit pada lawatan terakhir:

Jenis Penilaian	Lawatan Pertama	Lawatan terakhir	Keputusan
Penilaian Risiko Karies			Skor meningkat/menurun
Keputusan Saliva Buffer Test			Bacaan pH meningkat/menurun
Kekerapan dan anggaran pengambilan gula sehari			Meningkat/menurun

* Potong yang mana tidak berkenaan.

Kesimpulan:.....

.....

.....

Nama & Tandatangan Operator:_____

Borang Berhenti Merokok T1

TC[UPPKA.2022]

UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG BERHENTI MEROKOK T1

Nama Pesakit: _____No Pendaftaran: _____

Tarikh Lahir: _____ Umur: _____ Jantina:_____ Bangsa:_____

1. Apakah jenis alatan untuk merokok yang digunakan:
   - ☐ Rokok
   - ☐ Lain-lain: _____
2. Berapa banyak diambil dalam sehari? _____(nombor)
3. Berapa lama telah menghisap rokok? _____tahun / _____bulan
4. Jika ada mengunyah/menghidu tembakau. Jenis apa?_____

   4a. Berapa banyak diambil dalam sehari? _____(nombor)

   4b. Berapa lama dikunyah di dalam mulut _____ minit
5. Adakah orang yang paling rapat dengan anda merokok?
   - ☐ Ya
   - ☐ Tidak
6. Bacaan Karbon Monoksida _____.
7. Skor Ujian Fargestrom _____dan tahap kepergantungan kepada nikotin_____
8. Pernah cuba berhenti merokok?
   - ☐ Ya
   - ☐ Tidak
9. Berapa lama bertahan pada kali terakhir cubaan berhenti merokok?
   - ☐ Tahun _____
   - ☐ Bulan _____
   - ☐ Minggu ____
   - ☐ Hari _____
10. Mengapa gagal berhenti merokok? (sebab utama)

    _____
11. Adakah anda berminat untuk berhenti merokok?
    - ☐ Ya (isi borang T2 dan temujanji untuk lawatan seterusnya)
    - ☐ Tidak (gunakan *5R's Approach*)
12. Tahap perubahan_____

.

Tandatangan Operator:..... Tarikh :.....

Appendix 19

Daftar Pesakit ke Perkhidmatan Berhenti Merokok, PBM [UPPKA.2024]

PBM[UPPKA.2024]

DAFTAR PESAKIT KE PERKHIDMATAN BERHENTI MEROKOK BULAN JANUARI TAHUN 2026

UNIT PAKAR PERGIGIAN KESIHATAN AWAM KP BANDAR BOTANIK

BIL	TARIKH DAFTAR	SUMBER RUJUKAN	NAMA	NO. PENDAFTARAN PESAKIT	NO K/P	UMUR	JANTINA	BANGSA	ALAMAT	NO TEL	PENYAKIT YANG DIHIDAPI							TARIKH SASARAN BERHENTI MEROKOK (QUIT DATE)	TARIKH BERJAYA BERHENTI MEROKOK	TARIKH TEMUJANJI												RAWATAN	STATUS BERHENTI	JENIS ROKOK	CATATAN
											HTN	DM	IHD	KANSER	TIBI	ASTHMA	LAIN-LAIN																		

Borang Berhenti Merokok T2

TC[UPPKA.2022]
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG BERHENTI MEROKOK T2

Intervensi

1. Tarikh berhenti merokok yang telah dipersetujui.

☐ Ya Tarikh:_____
☐ Tidak

2. Sasaran pada lawatan seterusnya untuk mengurangkan bilangan rokok kepada_____
Adakah pesakit mempunyai masalah perubatan lain:

☐ Ya ☐ Tidak

3. Adakah pesakit telah dimaklumkan bahawa terdapat pelbagai jenis NRT yang boleh membantu berhenti merokok.

☐ Ya ☐ Tidak

4.*Nicotine Replacement Therapy (NRT)* yang disyorkan:

☐ *Patches*, dos :_____
☐ *Gum*, dos :_____
☐ Lain-lain :_____

5. Adakah pesakit bersetuju menggunakan NRT?

☐ Ya ☐ Tidak

6. Jika tidak bersetuju, berikan sebab

_____
_____
_____
_____
_____

Nama & Tandatangan Operator:

.....

Tarikh :.....

Appendix 21

Ujian Fagestrom/Modified Fargestrom Kebertangungan Terhadap Nikotin

FT[UPPKA.2024]

FT[UPPKA.2024]

UNIT PAKAR PERGIGIAN KESIHATAN AWAM

Ujian Fagerstrom/Modified Fagerstrom Kebergantungan Terhadap Nikotin*

1. Berapa cepatkah anda menghisap rokok/ sesi menghisap *vape* anda yang pertama selepas bangun dari tidur?
   - Selepas 60 minit (0)
   - 31-60 minit (1)
   - 6-30 minit (2)
   - Dalam masa 5 minit (3)

2. Adakah anda mengalami kesukaran untuk menahan diri dari merokok/menghisap *vape* di tempat-tempat yang dilarang merokok?
   - Ya (1)
   - tidak (0)

3. Sesi merokok/menghisap *vape* yang manakah paling sukar untuk ditinggalkan?
   - Rokok/vape pertama pada waktu pagi (1)
   - Rokok/vape pada waktu lain (0)

4. Berapa banyak rokok/vape dihisap dalam satu hari?
   - 10 or kurang (0)
   - 11-20 (1)
   - 21-30 (2)
   - 31 atau lebih (3)

5. Adakah anda lebih banyak merokok/menghisap vape dalam beberapa jam pertama selepas bangun tidur berbanding pada waktu-waktu lain sepanjang hari??
   - Ya (1)
   - Tidak (0)

6. Adakah anda merokok/menghisap vape walaupun anda sakit dan keadaan di mana anda terpaksa berbaring di atas katil sepanjang hari?
   - Ya (1)
   - Tidak (0)

Skor anda:…… Tahap Kebergantungan terhadap Nikotin :……..

0-2	Sangat Rendah	6-7	Tinggi
3-4	Rendah	8-10	Sangat Tinggi
5	Sederhana		

*Fargestrom Test: *Heatherton TF, Kozlowski LT, Frecker RC, Fagerstrom KO. The Fagerstorm Test for Nicotine Dependence: A revision of the Fagerstrom Tolerance Questioannaire. British Journal of Addictions 1991;86: 1119-27*

*Fagerstrom Test for Nicotine Dependence Equivalent Modified Scale *Rahman, A. U., Mohamed, M. H. N., Jamshed, S., Mahmood, S., & Baig, M. A. I. (2020). The development and assessment of modified Fagerstrom test for nicotine dependence scale among Malaysian single electronic cigarette users. Journal of Pharmacy & Bioallied Sciences, 12(Suppl 2), S671.*

The Safety Considerations Using the Pharmacological Approach in Smoking Cessation Activity

Every smoker should be offered medications endorsed in available guidelines,[A1] except when contraindicated or for specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents). Agents recommended for pharmacotherapy are divided into:[A1]

- Nicotine based – e.g. nicotine replacement therapies (NRT), e.g., gum, patch, lozenge and inhaler
- Non-nicotine based – e.g. varenicline, sustained release (SR) bupropion, and nortriptyline.

Nicotine Replacement Therapy

- **NRT General Safety Considerations:** Adverse effects from using NRT are related to the type of product, and include skin irritation from patches and irritation to the inside of the mouth from gum, spray and lozenge. Avoidance of NRT in CVD patients is not justified, as NRT is safer than smoking for dependent smokers.[A2] Guidelines for recommending NRT to CVD patients include:[A2]
    - Recommend NRT to smokers with CVD who have failed to quit without it.
    - Involve the consulting physician for patients who had a serious cardiovascular event within the past 4 weeks.
    - Ensure dosing does not exceed manufacturer recommendations.
    - Advise patients to stop using NRT if they relapse to smoking.
    - Target motivated smokers and provide or arrange intensive behavioural support with NRT.

Nicotine Gum Therapy

- **Dosing:**
  For monotherapy - Use at least one piece every 1 to 2 hours for at least 1-3 months. In total, about 10-15 pieces a day. Maximum quantity is 24 gum/day. taper down usage as per manufacturer's recommendation.
  For combination NRT - Use 1 piece of gum when needed (referring to urge to smoke)
- **Technique of Administration:**
  Chewing technique - Gum should be chewed slowly until a peppery or minty taste emerges, then parked between cheek and gum to facilitate nicotine absorption through the oral mucosa. Gum should be slowly and intermittently chewed and parked for about 30 minutes or until the taste dissipates. Chew it using the right way - not like regular chewing gum.
  Absorption - Eating and drinking anything (except plain water) should be avoided for 15 minutes before and during chewing as acidic beverages (e.g., coffee, juices, and soft drinks) interfere with the buccal absorption of nicotine. Do not eat or drink while gum is in the mouth
- **Side effects :** Mouth soreness, hiccups, dyspepsia, and jaw ache - usually mild and transient and often can be alleviated by correcting the patient's chewing technique
- **Contraindications/Precautions:**

Cardiac problems - such as immediate (within 2 weeks) post myocardial infarction period, those with serious arrhythmias, and those with serious or worsening angina pectoris

Pregnancy & Lactating - Pregnant smokers should be encouraged to quit first without pharmacologic treatment. Nicotine gum should be used during pregnancy only if the increased likelihood of smoking abstinence, with its potential benefits, outweighs the risk of nicotine replacement and potential concomitant smoking. Similar factors should be considered in lactating women

Nicotine Patch Therapy

Choice for slow/steady release of nicotine. Patch comes in: 16 hours and 24 hours patches with high (25mg), medium (15mg) and low(10mg) doses. Recommended for 3 months according to the patient's dependency:[A3]

- **Dosing:**

  If smoke ≥ 15 cigarettes per day - 1st - 8th week : 25mg/16 hours
  9th-10th week :15mg/16 hours
  11th-12th week: 10mg/16 hours

  If smoke < 15 cigarettes per day - 1st - 8th week : 15mg/16 hours
  9th-12th week :10mg/16 hours
- **Application technique:** Patch should be applied as the patient wakes up each day to avoid sleep disruption. Apply on relatively hairless locations (e.g. hip,upper arm or chest). Rotate sites (each week) to avoid skin irritation. When the patch is removed, fold patch and place it in its pouch before discarding
- **Side effects:** Skin reaction – Rotate patch sites or treat with steroidal creams. 24 hr patches may cause sleep disturbances compared to 16 hr patches. Headache, dizziness, nausea, vomiting, insomnia and/or vivid dreams
- **Contraindication/Precaution:**Cardiac problems such as immediate (within 2 weeks) post myocardial infarction period, those with serious arrhythmias, and those with serious or worsening angina pectoris. Pregnant smokers should be encouraged to quit first without pharmacological treatment. The nicotine patch should be used during pregnancy only if the increased likelihood of smoking abstinence, with its potential benefits, outweighs the risk of nicotine replacement and potential concomitant smoking. Similar factors should be considered in lactating women.

Nicotine 1mg Mouth Spray Therapy

Nicotine Mouth Spray has been developed to enable more rapid nicotine absorption than from existing oral NRT formats.[A4] However, the recommendation is subject to approval from KKM Pharmaceutical Services Programme.

- **Technique of Administration:**[A4,A5]

  Week 1-6 :1-2 sprays (1mg nicotine per spray) every 30-60 minutes. The 2nd spray should be used only if craving is not controlled after the 1st. Maximum is 4 sprays per hour or 64 sprays per day.

  Patients are advised to stop smoking completely during the course of treatment. However, for smokers who are not willing or ready to quit abruptly, the spray is used between periods of smoking in order to prolong the smoke-free intervals and with the intention to reduce smoking as much as possible. The patient should be aware that an incorrect use of the spray may enhance adverse effects.

Week 7-9 : Reduce to half of dose taken in previous 1st-6th weeks

Week 10-12 : Continue reducing the number of sprays per day so that patients are not using more than 4 sprays per day during week 12. When subjects have reduced to 2-4 sprays per day, oromucosal spray use should be discontinued

Maintenance

(after week 12): Patients may continue to use 1-2 sprays only in situations when they are strongly tempted to smoke. The 2nd spray should be used only if craving is not controlled after the 1st.Try to limit to not more than 4 sprays per day.

- **Side effects:**[A5]

General - Allergic reactions such as angioedema, urticaria or anaphylaxis may occur in susceptible individuals.

Local - Similar to those seen with other orally delivered forms. During the first few days of treatment irritation in the mouth and throat may be experienced, and hiccups are particularly common.

Indirect (associated with quitting habitual tobacco use) - Emotional or cognitive effects such as dysphoria or depressed mood; insomnia; irritability, frustration or anger; anxiety; difficulty concentrating, and restlessness or impatience.

There may also be physical effects such as decreased heart rate; increased appetite or weight gain, dizziness or presyncopal symptoms, cough, constipation, gingival bleeding or aphthous ulceration, or nasopharyngitis. In addition, and of clinical significance, nicotine cravings may result in profound urges to smoke.

- **Contraindication/Precaution:**[A5]

Contraindicated groups : Hypersensitivity to nicotine or to any of the ingredients, Children under the age of 18 years, those who have never smoked

Cardiac problems : Patient with a recent myocardial infarction, unstable or worsening angina including Prinzmetal's angina, severe cardiac arrhythmias, recent cerebrovascular accident and/or who suffer with uncontrolled hypertension should be encouraged to stop smoking with non pharmacological interventions (such as counselling). If this fails, the oromucosal spray may be considered but as data on safety in this patient group are limited, initiation should only be under close medical supervision.

Diabetic : Should be advised to monitor their blood sugar levels more closely than usual when smoking is stopped and NRT is initiated as reduction in nicotine induced catecholamine release can affect carbohydrate metabolism.

Allergic reactions : Patients with susceptibility to angioedema and urticaria

Renal and hepatic impairment : Use with caution in patients with moderate to severe hepatic impairment and/or severe renal impairment as the clearance of nicotine or its metabolites may be decreased with the potential for increased adverse effects.

Phaeochromo-cytoma and uncontrolled hyperthyroidism : Use with caution in patients with uncontrolled hyperthyroidism or phaeochromocytoma as nicotine causes release of catecholamines.

Gastro-intestinal Disease : Nicotine may exacerbate symptoms in patients suffering from oesophagitis, gastric or peptic ulcers and NRT preparations should be used with caution in these conditions

Epilepsy and seizures : Caution for patients with history of epilepsy or seizures during introduction of nicotine replacement therapy. Tobacco smoke contains substances – including nicotine – which act on brain receptors, and the changes in intake of these

when switching from smoked tobacco to nicotine replacement therapy during quitting may affect seizure threshold.

Pregnancy : Nicotine passes to the foetus and affects its breathing movements and circulation. The effect on the circulation is dose-dependent. Pregnant smokers should be encouraged to quit first without pharmacological treatment.The risk of continued smoking may pose greater hazard to the foetus as compared with the use of nicotine replacement products in a supervised smoking cessation programme. The nicotine patch should be used during pregnancy only if the increased likelihood of smoking abstinence, with its potential benefits, outweighs the risk of nicotine replacement and potential concomitant smoking.

Similar factors should be considered in lactating women as nicotine passes freely into breast milk in quantities that may affect the child even with therapeutic doses

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References:

[A1]Clinical Practice Guidelines Treatment of Tobacco Use Disorder, Malaysian Academy of Pharmacy, MOH 2016 Edition

[A2]McRobbie H, Hajek P. Nicotine replacement therapy in patients with cardiovascular disease: guidelines for health professionals. Addiction. 2001 Nov;96(11):1547-51.

[A3]Garispanduan Farmakoterapi berhenti Merokok Edisi Kedua 2019, Program Perkhidmatan Farmasi, Kementerian Kesihatan Malaysia

[A4]Nides M, Danielsson T, Saunders F, Perfekt R, Kapikian R, Solla J, Leischow SJ, Myers A. Efficacy and safety of a nicotine mouth spray for smoking cessation: A randomized, multicenter, controlled study in a naturalistic setting. Nicotine and Tobacco Research. 2020 Mar;22(3):339-45.

[A5]https://www.nicorette.com.my/nicorette-quickmist-prescribinginfo

Appendix 23

Borang T3-TC [UPPKA.2022]

TC[UPPKA.2022]
UNIT PAKAR PERGIGIAN KESIHATAN AWAM

BORANG BERHENTI MEROKOK T3

Lawatan Susulan

Nama Pesakit: _____ No. Pendaftaran: _____

Tarikh: _____ No. Lawatan : ② ③ ④ ⑤ ⑥

1. Adakah pesakit mencapai sasaran lawatan sebelum ini? Ya / Tidak
2. Jika tidak, nyatakan
   sebab:_____
   Soalan 3-5 hanya terpakai untuk pesakit yang bersetuju untuk menggunakan NRT pada lawatan pertama.
3. Adakah pesakit menggunakan NRT? Ya / Tidak
4. Jika tidak nyatakan
   sebab:_____
5. Ada sebarang masalah apabila menggunakan NRT? Ya / Tidak
   Nyatakan sebab:_____
6. Adakah pesakit mengalami simptom *withdrawal*?
   _____
   a. Cadangan untuk mengatasi simptom *withdrawal*
   _____
7. Bacaan Karbon Monoksida terkini_____
8. Skor Ujian Fagerstrom/*Modified* Fargestrom terkini_____
   Tahap kebergantungan kepada Nikotin_____
9. Status terkini untuk berubah_____
10. Ulasan pesakit berkaitan proses berhenti merokok (Ayat pesakit)
    _____
    _____
11. Ulasan operator di atas usaha pesakit untuk berhenti merokok
    _____
    _____

Tandatangan Operator:.....

Tarikh:.....

Appendix 24

Laporan Bulanan Perkhidmatan Berhenti Merokok KBM[UPPKA.2024]

KBM[UPPKA.2025]

SISTEM MAKLUMAT PENGURUSAN KESIHATAN
KEMENTERIAN KESIHATAN MALAYSIA
LAPORAN BULANAN PERKHIDMATAN BERHENTI MEROKOK UNIT PAKAR PERGIGIAN KESIHATAN AWAM
BAGI BULAN_____TAHUN_____

FASILITI:
DAERAH:
NEGERI:

KATEGORI UMUR	JANTINA		KUMPULAN ETNIK																	SUMBER RUJUKAN								JENIS ROKOK			MEMPUNYAI *QUIT DATE*	JENIS TERAPI			JUMLAH PESAKIT BERHENTI MEROKOK
	LELAKI	PEREMPUAN	MELAYU	CINA	INDIA	BAJAU	DUSUN	KADAZAN	MURUT	BUMIPUTERA SABAH LAIN	MELAYU SARAWAK	MELANAU	KEDAYAN	IBAN	BIDAYUH	BUMIPUTERA SARAWAK	ORANG ASLI SEMENANJUN	LAIN-LAIN		SARINGAN PRIMER	KEPAKARAN LAIN	PROGRAM *FAMILY DENTAL WELLNESS*	FASILITI KESIHATAN/ PERGIGIAN SWASTA	PROGRAM INKREMENTAL SEKOLAH/ KOTAK	KLINIK KESIHATAN	MQUIT	PROGRAM JANGKAU LUAR	SARINGAN UPPKA	KONVENSIONAL	ELEKTRONIK	KONVENSIONAL & ELEKTRONIK		BUKAN FARMAKOLOGI	FARMAKOLOGI	BUKAN FARMAKOLOGI & FARMAKOLOGI	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
<10 TAHUN																																				
10-14 TAHUN																																				
15-19 TAHUN																																				
20-59 TAHUN																																				
≥60 TAHUN																																				
JUMLAH																				0	0	0	0	0	0	0	0	0	0	0	0		0		0	0

Laporan Kohort Pesakit Berhenti Merokok KBMK[UPPKA.2024]

KBMK[UPPKA.2025]

SISTEM MAKLUMAT PENGURUSAN KESIHATAN
KEMENTERIAN KESIHATAN MALAYSIA
LAPORAN KOHORT PESAKIT BERHENTI MEROKOK UNIT PAKAR PERGIGIAN KESIHATAN AWAM
KOHORT_____TAHUN_____

FASILITI:
DAERAH:
NEGERI:

KATEGORI UMUR	JANTINA		KUMPULAN ETNIK																JUMLAH PEROKOK YANG MEMPUNYAI QUIT DATE (a)	BILANGAN PEROKOK YANG BERJAYA BERHENTI MEROKOK DALAM TEMPOH 6 BULAN (b)	PERATUS PEROKOK BERJAYA BERHENTI MEROKOK (b)/(a) x 100
	LELAKI	PEREMPUAN	MELAYU	CINA	INDIA	BAJAU	DUSUN	KADAZAN	MURUT	BUMIPUTERA SABAH LAIN	MELAYU SARAWAK	MELANAU	KEDAYAN	IBAN	BIDAYUH	BUMIPUTERA SARAWAK LAIN	ORANG ASLI SEMENANJUNG	LAIN-LAIN			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<10 TAHUN																					
10-14 TAHUN																					
15-19 TAHUN																					
20-59 TAHUN																					
≥60 TAHUN																					
JUMLAH																			0	0	0

PANDUAN DAN DEFINISI (GLOSARI)
LAPORAN BULANAN PERKHIDMATAN BERHENTI MEROKOK UNIT PAKAR PERGIGIAN KESIHATAN AWAM – KBM[UPPKA.2025]

Laporan Bulanan Perkhidmatan Berhenti Merokok Unit Pakar Pergigian Kesihatan Awam KBM[UPPKA.2025] ini digunakan untuk menyelenggara data bulanan pesakit yang menerima perkhidmatan berhenti merokok di Unit Pakar Pergigian Kesihatan Awam (UPPKA).

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI KBM[UPPKA.2025]
	BULAN	Bulan semasa laporan disediakan.
	TAHUN	Tahun semasa laporan disediakan.
	FASILITI	Nama klinik/fasiliti yang menyediakan laporan.
	DAERAH	Nama daerah bagi klinik/fasiliti yang menyediakan laporan.
	NEGERI	Nama negeri bagi klinik/fasiliti yang menyediakan laporan.
1	**KATEGORI UMUR**	
	<10 TAHUN	Bilangan pesakit yang berumur kurang dari 10 tahun
	10 – 14 TAHUN	Bilangan pesakit yang berumur antara 10 – 14 tahun.
	15 – 19 TAHUN	Bilangan pesakit yang berumur antara 15 - 19 tahun.
	20 – 59 TAHUN	Bilangan pesakit yang berumur antara 20 – 59 tahun.
	≥60 TAHUN	Bilangan pesakit yang berumur 60 tahun dan ke atas.
JANTINA		
2	LELAKI	Masukkan jumlah pesakit lelaki.
3	PEREMPUAN	Masukkan jumlah pesakit perempuan.

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	KBM[UPPKA.2025]
WARGANEGARA – KUMPULAN ETNIK			
4	MELAYU	Masukkan jumlah pesakit Melayu	
5	CINA	Masukkan jumlah pesakit Cina	
6	INDIA	Masukkan jumlah pesakit India	
7	BAJAU	Masukkan jumlah pesakit Bajau	
8	DUSUN	Masukkan jumlah pesakit Dusun	
9	KADAZAN	Masukkan jumlah pesakit Kadazan	
10	MURUT	Masukkan jumlah pesakit Murut	
11	BUMIPUTERA SABAH LAIN	Masukkan jumlah pesakit Bumiputera Sabah lain	
12	MELAYU SARAWAK	Masukkan jumlah pesakit Melayu Sarawak	
13	MELANAU	Masukkan jumlah pesakit Melanau	
14	KEDAYAN	Masukkan jumlah pesakit Kedayan	
15	IBAN	Masukkan jumlah pesakit Iban	
16	BIDAYUH	Masukkan jumlah pesakit Bidayuh	
17	BUMIPUTERA SARAWAK LAIN	Masukkan jumlah pesakit Bumiputera Sarawak lain	
18	ORANG ASLI SEMENANJUNG	Masukkan jumlah pesakit Orang Asli Semenanjung	
19	LAIN-LAIN	Masukkan jumlah pesakit dari kumpulan etnik yang lain	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	KBM[UPPKA.2025]
SUMBER RUJUKAN			
20	SARINGAN PRIMER	Masukkan jumlah pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui saringan perkhidmatan pergigian primer di klinik pergigian.	
21	KEPAKARAN LAIN	Masukkan jumlah pesakit yang dirujuk untuk perkhidmatan berhenti merokok oleh kepakaran lain.	
23	PROGRAM FAMILY WELLNESS	Masukkan jumlah pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui Program *Family Wellness*	
24	PROGRAM INKREMENTAL SEKOLAH/KOTAK	Masukkan jumlah pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui saringan perkhidmatan pergigian incremental di sekolah (Program KOTAK)	
25	KLINIK KESIHATAN	Masukkan jumlah pesakit yang dirujuk untuk perkhidmatan berhenti merokok oleh Klinik Kesihatan	
26	MQUIT	Masukkan pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui perkhidmatan mQuit/JomQuit	
27	PROGRAM JANGKAU LUAR	Masukkan pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui saringan program jangkau luar *(outreach).*	
28	SARINGAN UPPKA	Masukkan pesakit yang dirujuk untuk perkhidmatan berhenti merokok melalui saringan di UPPKA.	
	JENIS ROKOK		
29	KONVENSIONAL	Masukkan jumlah pesakit yang menggunakan rokok konvensional seperti rokok	
30	ELEKTRONIK	Masukkan jumlah pesakit yang menggunakan rokok konvensional seperti vape, pod,	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI KBM[UPPKA.2025]
31	KONVENSIONAL & ELEKTRONIK	Masukkan jumlah pesakit yang menggunakan kedua-dua rokok jenis konvensional dan elektronik.
32	MEMPUNYAI QUIT DATE	Masukkan jumlah pesakit yang mempunyai tarikh berhenti merokok *(quit date).*
JENIS TERAPI		
33	BUKAN FARMAKOLOGI	Masukkan jumlah pesakit merokok yang menjalani terapi bukan farmakologi sahaja seperti **kaunseling berhenti merokok.**
34	FARMAKOLOGI	Masukkan jumlah pesakit merokok yang menjalani terapi farmakologi sahaja termasuk ***Nicotine Replacement Therapy*** (*NRT*; contoh: *Nicotine patch, Nicotine gum, Nicotine lozenge, Nicotine oral spray*) **dan** ***Non-nicotine Replacement Therapy*** *(Non-NRT,* contoh: *Buproprion, Varenicline*).
35	BUKAN FARMAKOLOGI & FARMAKOLOGI	Masukkan jumlah pesakit merokok yang menjalani kedua-dua terapi bukan farmakologi dan farmakologi untuk berhenti merokok.
36	JUMLAH KLIEN BERHENTI MEROKOK	Masukkan jumlah pesakit yang telah berhenti merokok konvensional/elektronik selama sekurang-kurangnya enam (6) bulan.

PANDUAN DAN DEFINISI (GLOSARI)
LAPORAN KOHORT PESAKIT BERHENTI MEROKOK UNIT PAKAR PERGIGIAN KESIHATAN AWAM – KBMK[UPPKA.2025]

Laporan Kohort Pesakit Berhenti Merokok Unit Pakar Pergigian Kesihatan Awam KBMK[UPPKA.2025] ini digunakan untuk menyelenggara data pesakit yang berhenti merokok di Unit Pakar Pergigian Kesihatan Awam (UPPKA) mengikut kohort enam (6) bulan.

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI KBMK[UPPKA.2025]
	KOHORT	Kohort pesakit yang dipantau status berhenti merokok, sama ada Kohort Januari-Jun atau Julai-Disember. Pelaporan bagi Januari sehingga Jun mengambil kira perokok semasa berhenti merokok pada Januari sehingga Jun tahun semasa dibandingkan dengan perokok semasa yang yang mempunyai *quit date* pada Julai sehingga Disember tahun sebelumnya. Pelaporan bagi Julai sehingga Disember mengambil kira perokok semasa yang berhenti merokok pada Julai sehingga Disember tahun semasa berbanding perokok semasa yang yang mempunyai *quit date* pada Januari sehingga Jun tahun semasa.
	TAHUN	Tahun semasa laporan disediakan.
	FASILITI	Nama klinik/fasiliti yang menyediakan laporan.
	DAERAH	Nama daerah bagi klinik/fasiliti yang menyediakan laporan.
	NEGERI	Nama negeri bagi klinik/fasiliti yang menyediakan laporan.
1	**KATEGORI UMUR**	
	<10 TAHUN	Bilangan pesakit yang berumur kurang dari 10 tahun
	10 – 14 TAHUN	Bilangan pesakit yang berumur antara 10 – 14 tahun.
	15 – 19 TAHUN	Bilangan pesakit yang berumur antara 15 - 19 tahun.

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI KBMK[UPPKA.2025]
	20 – 59 TAHUN	Bilangan pesakit yang berumur antara 20 – 59 tahun.
	≥60 TAHUN	Bilangan pesakit yang berumur 60 tahun dan ke atas.
JANTINA		
2	LELAKI	Masukkan jumlah pesakit lelaki.
3	PEREMPUAN	Masukkan jumlah pesakit perempuan.
WARGANEGARA – KUMPULAN ETNIK		
4	MELAYU	Masukkan jumlah pesakit Melayu
5	CINA	Masukkan jumlah pesakit Cina
6	INDIA	Masukkan jumlah pesakit India
7	BAJAU	Masukkan jumlah pesakit Bajau
8	DUSUN	Masukkan jumlah pesakit Dusun
9	KADAZAN	Masukkan jumlah pesakit Kadazan
10	MURUT	Masukkan jumlah pesakit Murut
11	BUMIPUTERA SABAH LAIN	Masukkan jumlah pesakit Bumiputera Sabah lain
12	MELAYU SARAWAK	Masukkan jumlah pesakit Melayu Sarawak
13	MELANAU	Masukkan jumlah pesakit Melanau
14	KEDAYAN	Masukkan jumlah pesakit Kedayan
15	IBAN	Masukkan jumlah pesakit Iban
16	BIDAYUH	Masukkan jumlah pesakit Bidayuh

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI KBMK[UPPKA.2025]
17	BUMIPUTERA SARAWAK LAIN	Masukkan jumlah pesakit Bumiputera Sarawak lain
18	ORANG ASLI SEMENANJUNG	Masukkan jumlah pesakit Orang Asli Semenanjung
19	LAIN-LAIN	Masukkan jumlah pesakit dari kumpulan etnik yang lain
20	JUMLAH PEROKOK YANG MEMPUNYAI QUIT DATE (a)	Masukkan jumlah perokok yang mempunyai tarikh berhenti merokok *(quit date).*
21	BILANGAN PEROKOK YANG BERJAYA BERHENTI MEROKOK DALAM TEMPOH 6 BULAN (b)	Masukkan jumlah perokok yang yang telah berhenti merokok konvensional/elektronik selama sekurang-kurangnya enam (6) bulan.
23	PERATUS PEROKOK BERJAYA BERHENTI MEROKOK (b)/(a) x 100	Masukkan peratus pesakit yang telah berjaya berhenti merokok: N = Jumlah perokok yang telah berjaya berhenti merokok konvensional/elektronik selama sekurang-kurangnya enam (6) bulan. D = Jumlah perokok yang mempunyai tarikh berhenti merokok *(quit date).*

Borang Susulan Rujukan Amalan Berisiko

No Rujukan :

Tarikh Rujukan Diterima :

BORANG SUSULAN RUJUKAN AMALAN BERISIKO
(diisi oleh klinik rujukan dan dikembalikan semula ke Klinik Pergigian yang merujuk)

BAHAGIAN A (BUTIRAN PESAKIT YANG DIRUJUK)

Nama Pesakit	
Jantina	
Alamat	
No Telefon	
No Kad Pengenalan	
Umur	
Tarikh Rujukan	

BAHAGIAN B (PENGESAHAN PENERIMAAN RUJUKAN)

Tarikh Mula Pesakit Terima Intervensi	
Jenis Intervensi Diterima	
Cop dan Tandatangan Pegawai yang Menerima Rujukan	

BAHAGIAN C (SUSULAN SELEPAS 6 BULAN INTERVENSI AMALAN BERISIKO TINGGI)

Adalah disahkan pesakit diatas: **BERJAYA / TIDAK BERJAYA* MENGHENTIKAN AMALAN BERISIKO TINGGI**		
Nama Pegawai Yang Menerima Rujukan:	Cop dan Tandatangan Pegawai:	Tarikh:

*** Sila potong yang tidak berkenaan**

Appendix 27

AUDIT-C

AUDIT C

Soal klien sepertimana soalan yang dinyatakan dibawah. Tandakan jawapan diruang yang disediakan disebelah kanan setiap soalan. Mulakan sesi temubual dengan ayat "Saya akan bertanyakan tentang tabiat pengambilan minuman beralkohol anda dalam masa 12 bulan yang lepas". Jelaskan maksud minuman beralkohol dengan memberi contoh minuman beralkohol yang terdapat di tempat anda.

Pengiraan jumlah pengambilan alkohol mestilah mengikut ukuran "minuman beralkohol (*standard drink*)". Sila rujuk gambarajah 1.1 bagi mengetahui contoh pengukuran 1 minuman alkohol bagi mengira jumlah pengambilan alkohol.

1. Dalam tempoh 12 bulan yang lepas berapa kerapkah anda minum minuman keras/ arak/ beralkohol?

(0) Tak pernah
(1) Sekali sebulan atau kurang
(2) 2 – 4 kali sebulan
(3) 2 – 3 kali seminggu
(4) 4 kali atau lebih seminggu ☐

2. Kebiasaannya pada hari yang anda minum, berapa banyakkah anda minum minuman keras/ arak/ beralkohol?

(0) 1 atau 2 minuman alkohol
(1) 3 atau 4 minuman alkohol
(2) 5 atau 6 minuman alkohol
(3) 7, 8, atau 9 minuman alkohol
(4) 10 atau lebih minuman alkohol ☐

3. Berapa kerap anda minum enam minuman alkohol atau lebih minuman beralkohol pada satu masa?

(0) Tak pernah
(1) Kurang dari sekali sebulan
(2) Sekali sebulan
(3) Sekali seminggu
(4) Setiap hari atau hampir setiap hari

Jumlah skor keseluruhan ☐

Appendix 28

Health Information

a) Maklumat 1 (Maklumbalas pesakit)

Langkah pertama adalah untuk memaklumkan amalan gaya hidup sihat adalah "sihat tanpa alkohol". Ucapkan "TAHNIAH" kepada pesakit anda kerana dia telah mengambil langkah bijak untuk menjalani saringan risiko berkaitan pengambilan minuman beralkohol. Maklumkan kepada pesakit supaya mereka mengamalkan hidup sihat dengan tidak mengambil minuman beralkohol.

b) Maklumat 2 (Apa itu minuman beralkohol)

Untuk mengetahui lebih jelas risiko alkohol kepada pesakit, mereka perlu tahu apa itu minuman beralkohol.

Minuman beralkohol adalah minuman yang mengandungi alkohol (etanol). Minuman ini juga dikenali sebagai arak atau minuman keras. Alkohol/ etanol dalam minuman beralkohol adalah sejenis dadah dari kumpulan dadah *depressant* (penindas) yang boleh melambatkan aktiviti saraf dan ketidakseimbangan pergerakan fizikal anggota tubuh badan. Selain itu ianya toksik kepada organ dalam badan. Bagi remaja ianya boleh merencat perkembangan otak dan bagi wanita mengandung ianya boleh menyebabkan kecacatan kepada anak yang dikandung.

Maklumkan juga 3 kumpulan minuman alkohol iaitu minuman alkohol rendah, minuman alkohol sederhana, minuman alkohol tinggi. Minuman alkohol dengan kandungan alkohol yang tinggi adalah lebih merbahaya berbanding alkohol rendah. Maklumkan kepada pesakit apakah minuman beralkohol dengan memberi contoh jenis minuman beralkohol yang mereka minum dan yang didapati di kawasan komuniti tersebut.

Jenis-Jenis Minuman Beralkohol

- Minuman beralkohol di kedai Bir (*Beer, Stout*); alcohol rendah Wain (Wain buah-buahan, wain beras); alkohol sederhana Likuor dan spirit (*Liquor, Gin, Rum, Vodka*); alkohol tinggi
- Minuman beralkohol tradisional / dibuat di rumah Todi, Bahar. Ijuk; alkohol sederhana Tuak Beras, Air tapai, Lihing; alkohol sederhana Montoku, Langkau, Samsu; alkohol tinggi

c) Maklumat 3 (ukuran minuman alkohol)

Untuk mengetahui lebih jelas risiko alkohol kepada pesakit, mereka juga perlu tahu kuantiti alkohol yang mereka telah minum. Maklumkan kepada pesakit pengiraan unit minuman alkohol (*standard drink*), supaya mereka boleh menganggarkan jumlah pengambilan mereka.

Contoh sukatan bagi 1 minuman alkohol tradisional:

- Bahar/ Ijok/ Todi
- Air tapai/ Tuak beras/ Lihing
- Montoku/ Langkau/ Samsu

: 4 hirup/ 120 ml = 1 minuman alkohol : 3 hirup/ 90 ml = 1 minuman alkohol : 1 hirup/ 30 ml = 1 minuman alkohol

d) Maklumat 4 (Kemudaratan alkohol)

Pesakit hendaklah dimaklumkan tentang kesan mudarat alkohol. Alkohol dikaitkan dengan pelbagai kemudaratan, sesuaikan penerangan dengan keadaan dan persekitaran pesakit.

Kesan mudarat alkohol

Alkohol tergolong dalam kumpulan dadah penindas (*depressant*) yang mengganggu sistem saraf dengan melambatkan fungsi dan gerak balas anggota badan. Pengambilan yang banyak pada satu-satu masa menyebabkan mabuk dan hilang kawalan diri dan minda. Pengambilan yang berterusan boleh menyebabkan kebergantungan atau ketagihan kepada minuman beralkohol, juga kerosakan organ badan.

Kesan kesihatan pengambilan alkohol

Kategori	Kesan jangka pendek	Kesan jangka panjang
Gigi dan mulut	Mulut berbau, mulut kering, masalah gusi, karies gigi,	Kanser mulut, *burning sensation*, kurang deria rasa
Sistem saraf	Sakit kepala, pitam, kebas hujung jari tangan/ kaki	*Withdrawal syndrome*, sawan nyanyuk, pengecutan otak, gangguan berfikir, gangguan pergerakan
Sistem peredaran darah dan Jantung	Darah tinggi	Kerosakan jantung, denyutan nadi tidak normal, serangan jantung, angin ahmar, mati mengejut

Sistem penghadaman dan usus	Loya, muntah, Gastrik (dugal), cirit birit, luka dalam perut.	Gastritis teruk (kronik) Radang pankreas (akut dan kronik)
Hepar / Hati	Peningkatan enzim dalam hati	Hati berlemak (*Fatty liver*), Hepatitis, kerosakan hati (cirrhosis)
Sistem Reproduktif	Kesan kepada janin, *Fetal alcohol syndrome* (kecacatan bayi)	Gangguan fungsi seks, gangguan kitaran haid, tidak subur, putus haid awal, keguguran
Penyakit Kanser		Kanser hati, pankreas, esofagus, kanser mulut, kanser payudara
Masalah mental	Murung, resah (*anxiety*)	Gangguan mood, gangguan keresahan, masalah personaliti *(anti social*)
Masalah perundangan	Kesalahan jalan raya, memandu semasa mabuk, jenayah	Kemalangan jalan raya, kemalangan lain, keganasan, jenayah
Masalah di tempat kerja	Letih lesu, kerap tidak hadir kerana tidak sihat, kesukaran memberi penumpuan, kurang kecekapan.	Kemalangan, kecederaan, hilang pekerjaan, menganggur
Masalah keluarga	Konflik rumah tangga, anak bermasalah disiplin, mengabaikan tanggungjawab, beban kewangan, terpinggir	Perceraian, penderaan pasangan / anak, hilang hak penjagaan anak, beban kewangan
Kesan kepada kanak-kanak	Masalah di sekolah, stigma, kesukaran memberi tumpuan, gangguan emosi	Masalah pembelajaran, masalah tingkah laku, gangguan emosi berpanjangan

e) Maklumat 5 (Faedah sihat tanpa alkohol)

Pesakit juga perlu dimaklumkan tentang faedah-faedah yang diperolehi jika berhenti dari mengambil minuman beralkohol. Antara faedah utama ialah:

Kurang masalah keluarga

- Hubungan suami isteri lebih mesra
- Anak-anak lebih terjamin
- Tiada beban hutang
- Mampu untuk beli peralatan rumah, perbelanjaan keluarga, dll
- Boleh menabung untuk masa depan
- Tiada risiko mati mengejut

Tiada kesan mabuk

- Hubungan kejiranan lebih mesra (salah faham, pergaduhan, konflik)
- Kemalangan kepada diri sendiri atau melibatkan orang lain
- Kecederaan kepada diri sendiri atau orang lain (bergaduh, dera isteri, dera anak)
- Maruah diri anda lebih terpelihara

Prestasi kerja lebih baik

- Cergas ketika bangun tidur
- Tidak lewat ke tempat kerja
- Lebih tumpuan kepada kerja (fokus)
- Produktiviti kerja lebih baik
- Meningkatkan prestasi kerja

Kesihatan saya lebih terjamin

- Radang hati
- Kerosakan hati
- Darah tinggi

- Kanser
- Kurang risiko mati mengejut (akibat kemalangan, kecederaan atau angin ahmar)

Selain itu, anda juga akan menikmati faedah seperti :

- Tidur anda lebih berkualiti (tiada gangguan dan lebih segar bila bangun)
- Kurang berat badan (kerana minuman beralkohol berkalori tinggi)
- Pemakanan lebih seimbang (kerana pengambil alkohol lebih cenderung memakan daging dan sup apabila mengambil alkohol)
- Anda lebih gembira kerana emosi lebih ceria dan tenang
- Penggunaan wang yang lebih berfaedah dan boleh disimpan

f) Maklumat 6 (peluang untuk berhenti minum alkohol dan mengamalkan "sihat tanpa alkohol").

Akhiri pendidikan kesihatan dengan menanamkan semangat kepada pesakit untuk mengamalkan gaya hidup sihat iaitu "sihat tanpa alkohol". Maklumkan kepada mereka adalah penting untuk mereka berhenti meminum alkohol sepenuhnya atau mengurangkan pengambilan alkohol anda sekarang. Ramai orang mampu untuk membuat perubahan positif dalam sikap pengambilan alkohol, iaitu berhenti sepenuhnya.

Appendix 29

AUDIT-10

ALCOHOL USE DISORDER IDENTIFICATION TEST (AUDIT-10)

***ALCOHOL USE DISORDER IDENTIFICATION TEST* (AUDIT-10)**

1. Dalam tempoh 12 bulan yang lepas berapa kerapkah anda minum minuman keras/arak/ beralkohol?

   (0) Tak pernah [Terus ke soalan 9 & 10]
   (1) Sekali sebulan atau kurang
   (2) 2 – 4 kali sebulan
   (3) 2 – 3 kali seminggu
   (4) 4 kali atau lebih seminggu

2. Kebiasaannya pada hari yang anda minum, berapa banyakkah anda minum minuman keras/arak/ beralkohol?

   (0) 1 atau 2
   (1) 3 atau 4
   (2) 5 atau 6
   (3) 7, 8, atau 9
   (4) 10 atau lebih

3. Berapa kerap anda minum enam minuman alkohol atau lebih minuman beralkohol pada satu masa?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3 Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

   Jika jumlah skor untuk soalan 2 dan 3 ialah 0, terus ke soalan 9 & 10

4. Dalam tempoh 12 bulan yang lepas, berapa kerapkah anda tidak boleh berhenti minum apabila anda mula minum minuman keras/arak/beralkohol?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3) Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

5. Dalam tempoh 12 bulan yang lepas, akibat dari minum minuman keras/arak/ beralkohol berapa kerapkah anda tidak boleh melakukan apa yang biasanya anda lakukan?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3) Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

6. Dalam tempoh 12 bulan yang lepas, selepas meminum minuman keras/arak/beralkohol dalam jumlah banyak, berapa kerapkah pada pagi esoknya anda perlu meminum minuman keras/arak/beralkohol sebelum memulakan hari anda?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3) Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

7. Dalam tempoh 12 bulan yang lepas, berapa kerapkah anda rasa bersalah atau menyesal selepas minum minuman keras/arak/ beralkohol?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3) Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

8. Dalam tempoh 12 bulan yang lepas, berapa kerapkah anda tidak dapat mengingati apakah yang telah berlaku malam sebelumnya disebabkan anda telah mengambil minuman keras/arak/ beralkohol?

   (0) Tak pernah
   (1) Kurang dari sekali sebulan
   (2) Sekali sebulan
   (3) Sekali seminggu
   (4) Setiap hari atau hampir setiap hari

9. Pernahkah anda atau orang lain tercedera disebabkan anda meminum minuman keras/arak/beralkohol?

   (0) Tidak
   (2) Ya,tetapi bukan dalam tempoh setahun yang lepas
   (4) Ya,dalam tempoh setahun yang lalu

10. Pernahkah saudara anda atau kawan atau doktor atau anggota kesihatan mengambil berat atau mencadangkan supaya anda mengurangkan pengambilan minuman keras/arak/ beralkohol?

    (0) Tidak
    (2) Ya,tetapi bukan dalam tempoh setahun yang lepas
    (4) Ya,dalam tempoh setahun yang lalu

Catitkan jumlah kesemua skor disini

Appendix 30

List of clinics with One Stop Centre for Addiction (OSCA) by state

State	Num	List of Clinics	
Perlis	1	KK Kuala Perlis	
Kedah	4	KK Bdr Sg Petani KK Kuala Kedah	KK Lubuk Merbau KK Padang Mat Sirat
Pulau Pinang	1	KK Butterworth	
Perak	1	KK Parit	
Selangor	2	KK Bt. 9, Cheras	KK Seri Kembangan
WPKLP	10	KK Jinjang KK Sentul KK Tanglin KK Petaling Bahagia KK Cheras	KK Sg Besi KK Setapak KK Kuala Lumpur KK Presint 18 KK Presint 9
Melaka	6	KK Masjid Tanah KK Merlimau KK Peringgit	KK Tengkera KK Durian Tunggal KK Jasin
Johor	8	KK Batu Pahat KK Larkin KK Parit Sulong KK Sultan Ismail	KK Rengit KK Pasir Gudang KK Mengkibol KK Tampoi
Pahang	4	KK Beserah KK Bandar Tun Razak	KK Benta KK Bandar Jengka
Kelantan	4	KK Pengkalan Chepa KK Ketereh	KK Cherang Ruku KK Bachok
Terengganu	8	KK Kuala Besut KK Kuala Abang KK Bukit Payong KK Cendering	KK Bukit Tunggal KK Rahmat KK Kuala Kemaman KK Kuala Berang
Sarawak	20	KK Tudan KK Petra Jaya KK Kota Sentosa KK Samarahan KK Asajaya KK Siburan KK Sri Aman KK Lubok Antu KK Mid Layar KK Beladin	KK Kuala Oya KK Sarikei KK Bintangor KK Jalan Lanang KK Bintulu KK Jepak KK Tatau KK Kapit KK Batu Niah KK Lawas
Sabah	1	KK Menggatal	
WP Labuan	1	KK Labuan	
	74	**Total number of clinics**	

Note: Data as of December 2024

Appendix 31

Laporan Bulanan bagi Perkhidmatan Unit Pakar Pergigian Kesihatan Awam PG 201 UPPKA

PG 201 UPPKA

SISTEM MAKLUMAT PENGURUSAN KESIHATAN
KEMENTERIAN KESIHATAN MALAYSIA
LAPORAN BULANAN BAGI PERKHIDMATAN UNIT PAKAR PERGIGIAN KESIHATAN AWAM
BAGI BULAN...............TAHUN.................

FASILITI:
DAERAH:
NEGERI:

KATEGORI UMUR PESAKIT	STATUS KEDATANGAN TAHUN SEMASA		JANTINA		WARGANEGARA — KUMPULAN ETNIK																BUKAN WARGANEGARA
	BARU	ULANGAN	LELAKI	PEREMPUAN	MELAYU	CINA	INDIA	BAJAU	DUSUN	KADAZAN	MURUT	BUMIPUTERA SABAH LAIN	MELAYU SARAWAK	MELANAU	KEDAYAN	IBAN	BIDAYUH	BUMIPUTERA SARAWAK LAIN	ORANG ASLI SEMENANJUNG	LAIN-LAIN	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<1 TAHUN																					
1-4 TAHUN																					
5-6 TAHUN																					
7-9 TAHUN																					
10-12 TAHUN																					
13-14 TAHUN																					
15-17 TAHUN																					
18-19 TAHUN																					
20-29 TAHUN																					
30-49 TAHUN																					
50-59 TAHUN																					
≥60 TAHUN																					
JUMLAH																					

KATEGORI UMUR PESAKIT	SARINGAN DAN PENILAIAN KESIHATAN MULUT										PELAN RAWATAN OLEH PP(G)KA	INTERVENSI/PENGURUSAN KLINIKAL									
					PENILAIAN TABIAT BERISIKO							MODIFIKASI TINGKAH LAKU				RAWATAN PENCEGAHAN KLINIKAL					
	PENILAIAN RISIKO KARIES	SKOR PLAK PERGIGIAN	UJIAN AIR LIUR	SARINGAN KANSER MULUT	MEROKOK KONVENSIONAL	MEROKOK ELEKTRONIK	PENGAMBILAN ALKOHOL	MENGUNYAH SIRIH	PENILAIAN *DENTAL ANXIETY*	*ORAL HEALTH LITERACY*		PENDIDIKAN KESIHATAN PERGIGIAN	KAUNSELING DIET	TABIAT BERISIKO TINGGI	*DENTAL ANXIETY*	RAWATAN PROFILAKSIS/*POLISHING*	APLIKASI FLUORIDA TOPIKAL	APLIKASI KALSIUM FOSFAT	SEALAN FISUR	*PREVENTIVE RESIN RESTORATION TYPE 1*	SAPUAN *SILVER DIAMINE FLUORIDE (SDF)*
1	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
<1 TAHUN																					
1-4 TAHUN																					
5-6 TAHUN																					
7-9 TAHUN																					
10-12 TAHUN																					
13-14 TAHUN																					
15-17 TAHUN																					
18-19 TAHUN																					
20-29 TAHUN																					
30-49 TAHUN																					
50-59 TAHUN																					
≥60 TAHUN																					
JUMLAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

KATEGORI UMUR PESAKIT	INTERVENSI/PENGURUSAN KLINIKAL							*OUTCOME* RAWATAN								KES SELESAI	PROGRAM *FAMILY WELLNESS*				
	KURATIF			PENSKALERAN	CABUTAN		LAIN-LAIN RAWATAN										BILANGAN AHLI KELUARGA/ PENGIRING YANG TERLIBAT	BIL. AKTIVITI PKP YANG DIJALANKAN			
	TAMPALAN SEWARNA: *ANTERIOR*	TAMPALAN SEWARNA: *POSTERIOR*	JUMLAH TAMPALAN		GIGI DESIDUS	GIGI KEKAL		PENURUNAN SKOR PLAK PERGIGIAN	PENURUNAN KEKERAPAN PENGAMBILAN GULA SEHARIAN	BERHENTI MEROKOK KONVENSIONAL	BERHENTI MEROKOK ELEKTRONIK	BERHENTI PENGAMBILAN ALKOHOL	BERHENTI MENGUNYAH SIRIH	PENURUNAN SKOR *DENTAL ANXIETY*	PENINGKATAN SKOR *ORAL HEALTH LITERACY*			TUNJUK AJAR HIGIN MULUT (OHI)	PERUNDINGAN AHLI KELUARGA/PENGIRING	KAUNSELING DIET AHLI KELUARGA/PENGIRING	LAIN-LAIN
1	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
<1 TAHUN																					
1-4 TAHUN																					
5-6 TAHUN																					
7-9 TAHUN																					
10-12 TAHUN																					
13-14 TAHUN																					
15-17 TAHUN																					
18-19 TAHUN																					
20-29 TAHUN																					
30-49 TAHUN																					
50-59 TAHUN																					
≥60 TAHUN																					
JUMLAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PANDUAN DAN DEFINISI (GLOSARI)
LAPORAN BULANAN BAGI PERKHIDMATAN UNIT PAKAR PERGIGIAN KESIHATAN AWAM (UPPKA) - PG 201 UPPKA

Laporan Bulanan Bagi Perkhidmatan Unit Pakar Pergigian Kesihatan Awam – PG 201 UPPKA ini digunakan untuk menyelenggara data bulanan pesakit yang diperiksa/dirawat di Unit Pakar Pergigian Kesihatan Awam (UPPKA).

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI PG 201 UPPKA
	BULAN	Bulan semasa laporan disediakan.
	TAHUN	Tahun semasa laporan disediakan.
	FASILITI	Nama klinik/fasiliti yang menyediakan laporan.
	DAERAH	Nama daerah bagi klinik/fasiliti yang menyediakan laporan.
	NEGERI	Nama negeri bagi klinik/fasiliti yang menyediakan laporan.
1	**KATEGORI UMUR PESAKIT**	
	<1 TAHUN	Bilangan pesakit yang baru dilahirkan sehingga berumur kurang daripada 1 tahun. (1 hari hingga < 1 tahun)
	1 – 4 TAHUN	Bilangan pesakit yang berumur antara 1 – 4 tahun. (1 hingga <5 tahun)
	5 – 6 TAHUN	Bilangan pesakit yang berumur antara 5 – 6 tahun dan belum masuk sekolah rendah. (5 hingga <7 tahun)
	7 – 9 TAHUN	Bilangan pesakit yang berumur antara 7 – 9 tahun. (7 hingga <10 tahun)
	10 – 12 TAHUN	Bilangan pesakit yang berumur antara 10 – 12 tahun. (10 hingga <13 tahun)
	13 – 14 TAHUN	Bilangan pesakit yang berumur antara 13 – 14 tahun. (13 hingga <15 tahun)

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA
	15 – 17 TAHUN	Bilangan pesakit yang berumur antara 15 – 17 tahun. (15 hingga <18 tahun)	
	18 – 19 TAHUN	Bilangan pesakit yang berumur antara 18 – 19 tahun. (18 hingga <20 tahun)	
	20 – 29 TAHUN	Bilangan pesakit yang berumur antara 20 – 29 tahun. (20 hingga <30 tahun)	
	30 – 49 TAHUN	Bilangan pesakit yang berumur antara 30 – 49 tahun. (30 hingga <50 tahun)	
	50 – 59 TAHUN	Bilangan pesakit yang berumur antara 50 – 59 tahun. (50 hingga <60 tahun)	
	≥60 TAHUN	Bilangan pesakit yang berumur 60 tahun dan ke atas. (≥60 tahun)	
STATUS KEDATANGAN TAHUN SEMASA			
2	BARU	Masukkan jumlah pesakit yang dirujuk untuk kali pertama pada tahun semasa.	
3	ULANGAN	Masukkan jumlah pesakit ulangan dalam tahun semasa	
JANTINA			
4	LELAKI	Masukkan jumlah pesakit lelaki.	
5	PEREMPUAN	Masukkan jumlah pesakit perempuan.	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA
WARGANEGARA – KUMPULAN ETNIK			
6	MELAYU	Masukkan jumlah pesakit Melayu	
7	CINA	Masukkan jumlah pesakit Cina	
8	INDIA	Masukkan jumlah pesakit India	
9	BAJAU	Masukkan jumlah pesakit Bajau	
10	DUSUN	Masukkan jumlah pesakit Dusun	
11	KADAZAN	Masukkan jumlah pesakit Kadazan	
12	MURUT	Masukkan jumlah pesakit Murut	
13	BUMIPUTERA SABAH LAIN	Masukkan jumlah pesakit Bumiputera Sabah lain	
14	MELAYU SARAWAK	Masukkan jumlah pesakit Melayu Sarawak	
15	MELANAU	Masukkan jumlah pesakit Melanau	
16	KEDAYAN	Masukkan jumlah pesakit Kedayan	
17	IBAN	Masukkan jumlah pesakit Iban	
18	BIDAYUH	Masukkan jumlah pesakit Bidayuh	
19	BUMIPUTERA SARAWAK LAIN	Masukkan jumlah pesakit Bumiputera Sarawak lain	
20	ORANG ASLI SEMENANJUNG	Masukkan jumlah pesakit Orang Asli Semenanjung	
21	LAIN-LAIN	Masukkan jumlah pesakit dari kumpulan etnik yang lain	
22	BUKAN WARGANEGARA	Masukkan jumlah pesakit bukan warganegara	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA
SARINGAN DAN PENILAIAN KESIHATAN MULUT			
23	PENILAIAN RISIKO KARIES	Masukkan jumlah aktiviti penilaian pesakit yang dilaksanakan menggunakan **Borang Penilaian Risiko Karies.**	
24	SKOR PLAK PERGIGIAN	Masukkan jumlah aktiviti penilaian pesakit yang dilaksanakan dengan menggunakan **Borang Skor Plak Pergigian.**	
25	UJIAN AIR LIUR	Masukkan jumlah aktiviti penilaian saliva pesakit yang dilaksanakan menggunakan **Borang Ringkasan Klinikal/** dicatat dalam kad rawatan pesakit bagi salah satu atau kedua-dua ujian saliva: 1. *Resting* saliva 2. *Stimulating* saliva	
26	SARINGAN KANSER MULUT	Masukkan jumlah saringan kanser mulut yang dilaksanakan melalui pemeriksaan klinikal.	
	PENILAIAN TABIAT BERISIKO		
27	MEROKOK KONVENSIONAL	Masukkan jumlah aktiviti penilaian tabiat merokok konvensional yang dilaksanakan menggunakan **Borang Berhenti Merokok T1, Borang Ujian Fagerstrom FT[UPPKA.2024]**, dan analisa karbon monoksida dalam udara hembusan pesakit menggunakan peralatan ***smokerlyzer*** dan/atau analisis nikotin dalam air liur pesakit menggunakan ***cotinine test*.**	
28	MEROKOK ELEKTRONIK	Masukkan jumlah aktiviti penilaian tabiat menggunakan rokok elektronik yang dilaksanakan menggunakan **Borang Berhenti Merokok T1, Borang Ujian Fagerstrom FT[UPPKA.2024]**, dan analisis nikotin dalam air liur pesakit menggunakan ***cotinine test*.**	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA
29	MENGAMBIL ALKOHOL	Masukkan jumlah aktiviti penilaian tabiat pengambilan alkohol yang dilaksanakan menggunakan **Borang AUDIT-C** dan **AUDIT-10**, dan analisis alcohol dalam udara hembusan pesakit menggunakan peralatan ***breathalyzer***.	
30	MENGUNYAH SIRIH	Masukkan jumlah aktiviti penilaian tabiat mengunyah sirih.	
31	PENILAIAN *DENTAL ANXIETY*	Masukkan jumlah aktiviti penilaian *Dental Anxiety* yang dilaksanakan menggunakan instrumen yang disarankan dalam ***Modified Dental Anxiety Scale*** (≥16 Tahun) dan ***Malay Modified Child Anxiety Scale*** (5-12 Tahun) bagi Penilaian *Dental Anxiety.*	
32	*ORAL HEALTH LITERACY*	Masukkan jumlah aktiviti penilaian **Literasi Kesihatan Oral** yang dilaksanakan menggunakan borang **soal selidik Literasi Kesihatan Pergigian (OHLS-M-Q18)**	
33	PELAN RAWATAN OLEH PP(G)KA	Masukkan jumlah aktiviti konsultasi/pelan rawatan pesakit oleh **Pakar Pergigian Kesihatan Awam.**	
INTERVENSI/PENGURUSAN KLINIKAL			
	MODIFIKASI TINGKAH LAKU		
34	PENDIDIKAN KESIHATAN PERGIGIAN (PKP)	Masukkan jumlah aktiviti PKP yang meliputi penjagaan kebersihan mulut termasuk kaunseling dan aktiviti berkaitan kawalan plak seperti *Oral Hygiene Instruction (OHI)* dan *Tell-Show-Do* bagi Latihan Memberus Gigi (LMG).	
35	KAUNSELING DIET	Masukkan jumlah aktiviti kaunseling pemakanan berdasarkan **Borang Diari Pemakanan** yang telah diisi pesakit/ahli keluarga/pengiring.	
36	TABIAT BERISIKO TINGGI	Masukkan jumlah pelaksanaan intervensi termasuk kaunseling dan/atau preskripsi ubat (contoh: Terapi Gantian Nikotin) untuk mengatasi tabiat berisiko tinggi seperti merokok konvensional, menggunakan rokok elektronik, mengambil alkohol, dan mengunyah sirih.	

37	*DENTAL ANXIETY*	Masukkan jumlah aktiviti kaunseling yang mensasarkan perubahan tingkah laku *(behaviour modification)* untuk mengatasi *dental anxiety.*
	RAWATAN PENCEGAHAN KLINIKAL	
38	RAWATAN PROFIKALSIS/ *POLISHING*	Masukkan jumlah prosedur profilaksis/ penggilapan *(polishing)* yang dijalankan menggunakan pes profilaksis atau pumis sama ada secara keseluruhan/setempat.
39	APLIKASI FLUORIDA TOPIKAL	Masukkan jumlah aplikasi fluorida secara topikal sama ada keseluruhan/setempat.
40	APLIKASI KALSIUM FOSFAT	Masukkan jumlah aplikasi kalsium fosfat.
41	SEALAN FISUR	Masukkan jumlah bilangan gigi yang telah diberi rawatan sealan fisur.
42	*PREVENTIVE RESIN RESTORATION TYPE 1*	Masukkan jumlah bilangan gigi yang telah diberi restorasi preventif resin jenis 1 (PRR Jenis 1) yang diletakkan di pit dan fisur/alur gigi untuk menangani kes lesi karies awal.
43	SAPUAN *SILVER DIAMINE FLUORIDE* (SDF)	Masukkan jumlah bilangan gigi yang telah diberi sapuan SDF.
	KURATIF	
44	TAMPALAN SEWARNA *ANTERIOR*	Masukkan jumlah bilangan tampalan sewarna yang telah dibuat ke atas gigi *anterior* kekal/desidus.
45	TAMPALAN SEWARNA *POSTERIOR*	Masukkan jumlah bilangan tampalan sewarna yang telah dibuat ke atas gigi *posterior* kekal/desidus.

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA
46	JUMLAH TAMPALAN	Masukkan jumlah keseluruhan tampalan yang telah dibuat.	
47	PENSKALERAN	Masukkan jumlah rawatan penskaleran.	
	CABUTAN		
48	GIGI DESIDUS	Masukkan jumlah bilangan gigi desidus yang telah dicabut.	
49	GIGI KEKAL	Masukkan jumlah bilangan gigi kekal yang telah dicabut.	
50	LAIN-LAIN RAWATAN	Masukkan jumlah bilangan rawatan selain yang dinyatakan di atas.	
***OUTCOME* RAWATAN**			
51	PENURUNAN SKOR PLAK PERGIGIAN	Masukkan jumlah pesakit dengan skor plak (sebelum memberus gigi) mencapai sekurang-kurangnya 20 peratus dalam tempoh tiga (3) bulan.	
52	PENURUNAN KEKERAPAN PENGAMBILAN GULA SEHARIAN	Masukkan jumlah pesakit yang mempunyai penurunan kekerapan pengambilan gula seharian dalam tempoh tiga (3) bulan.	
53	BERHENTI MEROKOK KONVENSIONAL	Masukkan jumlah pesakit yang berhenti merokok konvensional selama sekurang-kurangnya enam (6) bulan.	
54	BERHENTI MEROKOK ELEKTRONIK	Masukkan jumlah pesakit yang berhenti menggunakan rokok elektronik selama sekurang-kurangnya enam (6) bulan.	
55	BERHENTI MENGAMBIL ALKOHOL	Masukkan jumlah pesakit yang berhenti tabiat mengambil alkohol selama sekurang-kurangnya enam (6) bulan.	
56	BERHENTI MENGUNYAH SIRIH	Masukkan jumlah pesakit yang berhenti tabiat mengunyah sirih selama sekurang-kurangnya enam (6) bulan.	

RUANGAN	MAKLUMAT	PANDUAN DAN DEFINISI	PG 201 UPPKA

57	PENURUNAN SKOR *DENTAL ANXIETY*	Masukkan jumlah pesakit yang menunjukkan penurunan skor penilaian *Dental Anxiety* setelah diberi kaunseling.
58	PENINGKATAN SKOR *ORAL HEALTH LITERACY*	Masukkan jumlah pesakit yang menunjukkan peningkatan skor *Oral Health Literacy* setelah diberi kaunseling.
59	KES SELESAI	Masukkan jumlah kes selesai/*discharge* yang mencapai tahap memuaskan pada *outcome* rawatan bagi tujuan **utama** rujukan.

PROGRAM *FAMILY WELLNESS*

60	BILANGAN AHLI KELUARGA/PENGIRING YANG TERLIBAT	Masukkan jumlah ahli keluarga/pengiring bagi semua kategori yang diberi PKP.
	BILANGAN AKTIVITI PKP YANG DIJALANKAN	
61	TUNJUK AJAR HIGIN MULUT (OHI)	Masukkan jumlah aktiviti berkaitan tunjuk ajar higin mulut yang diberikan oleh anggota kesihatan pergigian kepada ahli keluarga/pengiring secara individu/kumpulan.
62	PERUNDINGAN AHLI KELUARGA/PENGIRING	Masukkan jumlah aktiviti perundingan di antara pakar dengan ahli keluarga/ pengiring.
63	KAUNSELING DIET AHLI KELUARGA/ PENGIRING	Masukkan jumlah aktiviti kaunseling diet yang diberikan kepada ahli keluarga/pengiring.
64	LAIN-LAIN	Masukkan jumlah aktiviti lain berkaitan PKP selain yang dinyatakan di ruangan sebelumnya.

Appendix 32

DPHSU in Dental Specialist Centre

Room	Specifications/Requirements
Dental Surgery	DPHSU in dental specialist centre will be equipped with two dental surgeries room (one surgery room for DPHS and one surgery room for dental officer). Each surgery room consist of: • Seamless worktop made of heat resistant, scratch resistant and chemical resistant material for placement of equipment and preparation of dental materials. • One deep stainless-steel sink for cleaning of dental instruments. • One ceramic clinical sink with elbow taps for hand washing • Computer and networking devices Each treatment room has a common path for oral healthcare personnel usage. This route allows access to the dirty utility room and a wet dental laboratory without going through the public areas.
Counselling room	This room will be used for routine counselling of patient and family members. It will be equipped with: • Work desk that also functions as a work area of DPHS • Table and chairs suitable for counselling to individuals and groups of patients • Appropriate storage cabinet with shelves and drawers. • Washbasin with mirror for dental health education and plaque score • Sufficient power socket (minimum 4 -10 units) • Computer and network facilities • Other equipment such mannequins, smokerlyser, saliva test kit, digital blood pressure machine, glucometer, plaque house, enhanced oral assessment system (Velcscope) and digital weight scale.
Skills Laboratory Room	Skills laboratory room (Skills Lab) is a common teaching area for all specialties. It should be equipped with computers, LCD projectors, LCD screen and internet network. It shall be able to accommodate at least ten personnel for training. This room will be used for clinical and non-clinical skill teaching. This skills lab need to be equipped with the basic education tools such as sculpture mannequin and furniture such as working table/cubical and built-in display cabinet.

Appendix 33

DPHSU in Dental Specialist Clinic

Room	Specifications/Requirements
Dental Surgery	DPHSU in dental specialist centre will be equipped with two dental surgeries room (one surgery room for DPHS and one surgery room for dental officer). Each surgery room consist of: • Seamless worktop made of heat resistant, scratch resistant and chemical resistant material for placement of equipment and preparation of dental materials. • One deep stainless-steel sink for cleaning of dental instruments. • One ceramic clinical sink with elbow taps for hand washing. • Computer and networking devices. Each treatment room has a common path for oral healthcare personnel usage. This route allows access to the dirty utility room and a wet dental laboratory without going through the public areas.
Counselling room	This room will be used for routine counselling of patient and family members. It will be equipped with: • Work desk that also functions as a work area of DPHS • Table and chairs suitable for counselling to individuals and groups of patients • Appropriate storage cabinet with shelves and drawers. • Washbasin with mirror for dental health education and plaque score • Sufficient power socket (minimum 4 -10 units) • Computer and network facilities • Other equipment such mannequins, smokerlyser, saliva test kit, digital blood pressure machine, glucometer, plaque house, enhanced oral assessment system (Velcscope) and digital weight scale.

Appendix 34

DPHSU in Primary Oral Healthcare clinic (Type 1 and Type 2 Health Clinic)

Room	Specifications/Requirements
Dental Surgery	DPHSU in dental specialist centre will be equipped with two dental surgeries room (one surgery room for DPHS and one surgery room for dental officer). Each surgery room consist of: • Seamless worktop made of heat resistant, scratch resistant and chemical resistant material for placement of equipment and preparation of dental materials. • One deep stainless-steel sink for cleaning of dental instruments. • One ceramic clinical sink with elbow taps for hand washing. • Computer and networking devices. Each treatment room has a common path for oral healthcare personnel usage. This route allows access to the dirty utility room and a wet dental laboratory without going through the public areas.
Counselling room	This room will be used for routine counselling of patient and family members. It will be equipped with: • Work desk that also functions as a work area of DPHS • Table and chairs suitable for counselling to individuals and groups of patients • Appropriate storage cabinet with shelves and drawers. • Washbasin with mirror for dental health education and plaque score • Sufficient power socket (minimum 4 -10 units) • Computer and network facilities • Other equipment such mannequins, smokerlyser, saliva test kit, digital blood pressure machine, glucometer, plaque house, enhanced oral assessment system (Velcscope) and digital weight scale.

List of standard equipment and material in DPHSU

(The data presented is accurate as of June 2025 and may be subject to revision over time)

A. Medical equipment

No.	List of Equipment	Quantity	Prices	
			Per unit	Total
1	Dental Chair Cum Unit (Specialist)	1	150,000.00	150,000.00
2	Dental Chair Cum Unit (Officer)	1	100,000.00	100,000.00
3	Door Display Chiller - Heated Glass Door	1	2,745.00	2,745.00
4	Dental Mobile Cabinet	2	2,855.00	5,710.00
5	Dressing Trolley Stainless Steel c/w Two Drawer	2	1,356.00	2,712.00
6	Water Distiller	1	5,800.00	5,800.00
7	Sealing Machine	1	2,300.00	2,300.00
8	Ultrasonic Cleaner	1	3,224.00	3,224.00
9	Incubator Biological Test	1	3,000.00	3,000.00
10	Autoclave, Table Top B Type	2	20,000.00	40,000.00
11	Breath Carbon Monoxide Monitor (Smokerlyzer)	1	4,000.00	4,000.00
12	Handpiece Highspeed Bein Air Bora L	2	2,900.00	5,800.00
13	Amalgamator	1	3,000.00	3,000.00
14	Portable Light Cure Unit (LED)	1	3,000.00	3,000.00
15	Portable Scaler Unit	1	7,500.00	7,500.00
16	Portable Suction Unit	1	3,000.00	3,000.00
17	Pulp Tester (digital)	1	3,000.00	3,000.00
18	*Tooth Models for Dental Health Education*	1 set	15,960.00	15,960.00
19	Peralatan Pemulihan & Kecemasan (seperti katil besi, Pulse Oximeter, Digital Blood Pressure Set dll): Jika di Pusat Pakar Non-Hospital Based	1 set	5,679.00	5,679.00
20	Portable ADU	1	5,000.00	5,000.00
21	Extra Oral Vacuum Suction (Optional)	1	5,000.00	5,000.00
22	Intraoral Camera (for DHE purpose)	1	15,000.00	15,000.00
23	Medical Emergency Cart	1	2,834.00	2,834.00
Grand Total				410,264.00

B. Non-medical equipment

No.	List of Equipment	Quantity	Prices	
			Per unit	Total
1	Locker Compartment	3	1,000.00	3,000.00
2	Meja Eksekutif	1	1,500.00	1,500.00
3	Kerusi Eksekutif (High Back)	1	500.00	500.00
4	Meja Pegawai Set	2	1,000.00	2,000.00
5	Kerusi Eksekutif (Low Back)	2	400.00	800.00
6	Peti Kunci	1	500.00	500.00
7	Kabinet Besi Berlaci	2	500.00	1,000.00
8	Kabinet Fail	7	1,000.00	7,000.00
9	Modular Cabinet	2	1,000.00	2,000.00
10	Model Display Cupboard/cabinet	1	2,000.00	2,000.00
11	Mobile Filling cabinet	2	6,000.00	12,000.00
12	Kerusi Berangkai	10	1,000.00	10,000.00
13	Sofa set	1	2,000.00	2,000.00
14	Televisyen	1	1,000.00	1,000.00
15	Digital Calling System	1	30,000.00	30,000.00
16	Mannequin	1	1,000.00	1,000.00
17	Komputer (Desktop)	2	5,000.00	10,000.00
18	Komputer Riba /Laptop	1	5,000.00	5,000.00
19	Printer (Desktop)	2	500.00	1,000.00
20	Printer (3 in 1)	1	1,200.00	1,200.00
21	Mesin Laminate	1	500	500
22	Note Pad (iPad) for DHE	1	4,000.00	4,000.00
23	*DSLR Camera for documentation*	1	6,000.00	6,000.00
24	Alat Pemadam Api	5	200	1,000.00
25	Kenderaan	1	120,000.00	120,000.00
26	Kerusi Menunggu untuk Pelanggan	5		
27	Interaktif 70 inch smart screen with wifi/internet connection	1		
Grand Total				225,000.00

C. General equipment

No.	List of Equipment	Quantity	Prices	
			Per unit	Total
I. General equipment				
1	Digital Blood Pressure Set	1	500.00	500.00
2	Glucometer	1	300.00	300.00
3	Digital Weighing Scale	1	300.00	300.00
II. Dental Screening Equipment				
4	Examination Tray (Approximately size 20 X 10 cm)	20	40.00	800.00
5	Tray Kidney 6"	2	50.00	100.00
6	Gallipot S/S 6 ozs	2	20.00	40.00
7	Gallipot S/S 2 ozs	2	50.00	100.00
8	Probes No.9	20	30.00	600.00
9	Probes Periodontal	10	50.00	500.00
10	Probes CPITN	10	150.00	1,500.00
11	Tweezer College Fig.8	20	40.00	800.00
12	Mouth Mirror Handle	20	50.00	1,000.00
III. Dental Restorative Equipment				
13	Bur Brush Hand Type	2	50.00	100.00
14	Glass Slab (Thick)	2	50.00	100.00
15	Dappen Glass	2	20.00	40.00
16	Dycal Applicators	4	30.00	120.00
17	Plastic Filling Inst. Fig 1	4	50.00	200.00
18	Plastic Filling Inst. Fig 2	4	50.00	200.00
19	Plastic Filling Inst. Fig 6	4	50.00	200.00
20	Plastic Filling Inst. Fig 178	4	50.00	200.00
21	Amalgam Plugger Double Ended Serrated Fig.153/154	4	40.00	160.00
22	Amalgam Carrier Metal Tip 125mm Curved 45°	4	100.00	400.00
23	Burnisher Round Fig.18	4	70.00	280.00
24	Carver No.1	4	40.00	160.00
25	Carver No.2	4	40.00	160.00
26	Spatula S/S Fig. 3	2	40.00	80.00
27	Excavators Fig.125/126	4	50.00	200.00
28	Excavators Fig.129/130	4	50.00	200.00
29	Excavators Fig.153/154	4	50.00	200.00
30	Martix Outfit Squiveland Wide	4	40.00	160.00
31	Martix Outfit Squiveland Narrow	4	40.00	160.00
32	Burnisher Pear Shape	4	60.00	240.00
33	Bur Block (Autoclavable)	2	60.00	60.00
IV. Dental extraction/Minor Oral Surgical Equipment				
34	Forcep Extraction Upper Central Straight	2	400.00	800.00
35	Forcep Extraction Upper Lateral Straight	2	400.00	800.00
36	Forcep Extraction Upper Canine	2	400.00	800.00

37	Forcep Extraction Upper Premolar	2	400.00	800.00
38	Forcep Extraction Upper Molar Left	2	400.00	800.00
39	Forcep Extraction Upper Molar Right	2	400.00	800.00
40	Forcep Extraction Upper Root Straight	2	400.00	800.00
41	Forcep Extraction Upper Root Curve	2	400.00	800.00
42	Forcep Extraction Special Root Right Fig.89	1	400.00	400.00
43	Forcep Extraction Special Root Right Fig.90	1	400.00	400.00
44	Forcep Extraction Upper Third Molar	2	400.00	800.00
45	Forcep Extraction Lower Incisor	2	400.00	800.00
46	Forcep Extraction Lower Canine	2	400.00	800.00
47	Forcep Extraction Lower Premolar	2	400.00	800.00
48	Forcep Extraction Lower Molar FIG 86A	2	400.00	800.00
49	Forcep Extraction Lower Molar Fig 99	2	400.00	800.00
50	Forcep Extraction Lower Molar Fig 73	2	400.00	800.00
51	Forcep Extraction Third molar	2	400.00	800.00
52	Forcep Extraction Lower Root	2	400.00	800.00
53	Forcep Extraction Upper Anterior Straight Child	2	400.00	800.00
54	Forcep Extraction Upper Anterior Curve Child	2	400.00	800.00
55	Forcep Extraction Upper First Molar Child	2	400.00	800.00
56	Forcep Extraction Upper Second Molar Child	2	400.00	800.00
57	Forcep Extraction Upper Root Child	2	400.00	800.00
58	Forcep Extraction Lower Incisor Child	2	400.00	800.00
59	Forcep Extraction Lower Molar Child	2	400.00	800.00
60	Forcep Extraction Lower Root Child	2	400.00	800.00
61	Artery Forcep Straight 5" holder straight	1	250.00	250.00
62	Artery Forcep curved 6"	1	250.00	250.00
63	Forcep Mosquito	1	180.00	180.00
64	Forcep Sinus	1	180.00	180.00
65	Tissue Forceps	1	180.00	180.00
66	Elevator Coupland No.1	2	180.00	360.00
67	Elevator Coupland No.2	2	180.00	360.00
68	Elevator Coupland No.3	2	180.00	360.00
69	Elevator Warwick James Straight	2	200.00	400.00
70	Elevator Warwick James (Left)	2	200.00	400.00
71	Elevator Warwick James (Right)	2	200.00	400.00
72	Elevator Apexo Lever Straight	2	200.00	400.00
73	Elevator Apexo Lever (Left)	2	200.00	400.00
74	Elevator Apexo Lever (Right)	2	200.00	400.00
75	Elevator Cryers Left	2	240.00	480.00
76	Elevator Cryers Left	2	240.00	480.00
77	Elevator Periostal No 1	2	300.00	600.00
78	Elevator Periostal No 5	2	300.00	600.00
79	Bone File	1	250.00	250.00
80	Bone File Double Ended	1	250.00	250.00
81	Bone Currette	1	120.00	120.00
82	Bone Forcep Rongeurs No 1	1	900.00	900.00

83	Bone Forcep Rongeurs No 3	1	900.00	900.00
84	Catridge Syringe 2.2ml	10	300.00	3,000.00
85	Cheek retractor (Small)	1	200.00	200.00
86	Cheek retractor (Large)	1	200.00	200.00
87	Scalpel Blade Handle	2	25.00	50.00
88	Scissors surgical curved	2	50.00	50.00
89	Scissors surgical straight	2	50.00	50.00
90	Needle holder	1	200.00	200.00
V. Others Equipment				
91	Bib Clips Chain	6	20.00	120.00
92	Glass Jar with Cover	1	100.00	100.00
93	Cheatle Forcep 28cm	1	100.00	100.00
94	Cheatle Forcep holder	1	80.00	80.00
95	Tray Instrument S/S 9" x 5" x 2" with Cover	6	70.00	420.00
96	Tray Instrument S/S 12" x 8" x 2" With Cover	4	80.00	320.00
97	Dressing Jar With Lid 4"	2	70.00	140.00
98	Dressing Jar With Lid 8"	2	80.00	160.00
99	Face Shield	2	150.00	300.00
100	Paper Cup Dispenser	1	180.00	180.00
101	Goggles Safety High Impact/UV Protection	2	70.00	140.00
102	Cotton wool holder S/S	1	30.00	30.00
103	Photograph reflector/ wide mirror (occlusal & buccal set)	1	400.00	400.00
104	Lip reflector for photography (plastic)	2	60.00	120.00
105	Fissure Bur	10	25.00	250.00
106	Breathalyzers	2	400.00	800.00
107	Cotinine Rapid Test	30	25.00	750.00
108	Buffer Saliva Test	1	500.00	500.00
109	Phoshor Plate Holder: 2 Bitewing Holder, 4 Posterior/ Periapical Holders 50 Clips- 1 Polishing Ring	1	1400.00	1400.00
110	Clip Phospor Plate Holder Kit (300pcs) Disposable Clip With Sticker- Code 97901671	1	800.00	800.00
111	Tip Wrench 5l- Satelec (with protective cover)	4	56.00	224.00
112	Capsulated Gun	1	175.00	175.00
113	Min Max Termometer Zeal Uk	1	150.00	150.00
114	Kitchen Timer	1	25.00	25.00
115	Colourful Dental X-Ray Film Positioner	1	300.00	300.00
116	Helix Test	1	250.00	250.00
117	Disposable D Piece Adaptor Box of 12s	1	270.00	270.00
118	Goggles/Face Shield Frame	5	50.00	250.00
Grand Total				52,564.00

D.Oral health promotion equipment

No.	List of Equipment	Quantity	Prices	
			Per unit	Total
1	Caries Study Model R Type Code : HLWT 60028	1	880.00	880.00
2	Adult Giant Typodent Tooth Model With Tongue Code : WTSXG 848 (B)	2	520.00	1,040.00
3	Primary Dentition Model 1 (Age 3) Code : WTXZ-A006	1	680.00	680.00
4	Mixed Dentition Model II (Age 3) Code : WTXZ-A007	1	680.00	680.00
5	Tooth Shaped Lamp Code : TSL (S)	2	150.00	300.00
6	Transperant Display Model Cabinet Cylinder Type Code : WT 7004	2	1,800.00	3,600.00
7	Clinical Model - Dental Pulp Disease (I-Type) Code : HLWT 60021-08	2	480.00	960.00
8	Molar Cutting Model (H-Type) Code : HLWT 60009	1	980.00	980.00
9	Crown, Bone, Nerves & Caries Study Model Code : RWST 8081301	2	320.00	640.00
10	Enlarged Pathological Tooth Model Code : WTXZ-B001	2	380.00	760.00
11	Sectioned Caries Model (4 times) Code : WTXZ-B004	1	480.00	480.00
12	Mixed Dentition Model (Age 7) Code : WTXZ-B015	1	680.00	680.00
13	Mandible Study Model Code : WTXZ - B006	1	680.00	680.00
14	Study Model Display Cab. Size : 30" X 11" X 60" Code : WT(MC)-SMDC061103	1	3,600.00	3,600.00
15	Malocclusion orthodontic model	1	300.00	300.00
16	Implant model	1	300.00	300.00
Grand Total				16,560

E. List of dental materials

Bil.	Senarai kelengkapan	Kuantiti	Harga	
			Seunit	Jumlah
1	Gc Fuji Ix Glass Ionomer			
2	Dycal			
3	Kalzinol Liquid/Powder			
4	Fissure Sealnt Resin (Light Cure)			
5	Light Cure Composite			
6	Bonding Agent			
7	Etching Gel			
8	Prophylaxis Paste			
9	K - FILES SZ 10x 21MM			
10	K - Files Sz 15-40 21mm			
11	Paper Point Sz: 15-40			
12	Stainless Steel Crown			
13	Finger Spreader -Rct			
14	Normal Saline			
15	Duraphat Flouride Varnish 10ml			
16	Band Matrix Siqveland Narrow			
17	Band Matrix Siqveland Wide			
18	Celluloid Strips 6mm			
19	Celluloid Strips 10mm			
20	Dental Floss - Waxed			
21	Paper Articulating (12 S)			
22	Mouth Mirror No 4 (12 S)			
23	Wooden Wedges			
24	Topical Anesthetic Gel (Xylocaine/Gesicane)			
25	Dental Plaque Disclosing Gel			
26	Dental Plaque Disclosing Tablet			
27	Vaseline (450 Gm)			
28	Needle Hypodermic Dip. 27g X 22mm Short (0.4x22mm)			
29	Needle Disp 27g X 41 Mm (Long)			
30	Needle Disp. 23 G X 25 Mm			
31	Cotton Wool Rool No: 1 (2000 S)			
33	Cotton Wool Rool No: 2 (2000 S)			
35	Polishing Strip 4mm X 10m			

36	Syringe Disposable 10 Ml			
37	Syringe Disp. 20ml			
38	Saliva Ejector (100 S)			
39	Disposable Head Cover (Hood /Tudung)			
40	Disposable Shoe Cover			
41	Isolation Surgical Gown 1 Pkt (10ps)			
42	Round Cap			
42	N95 Respirator Disposable			
43	Disposable Face Mask Ear Loops			
44	Surg Face Mask Tie On (50 S)			
45	Flat Pouches For Sterilization 100 Mm X 250 Mm			
46	Sterilization Pouches 190 Mm X 358 Mm			
47	Disposable Plastic Apron			
48	Absorbant Gauze			
49	Safety Goggles			
50	Face Shield (Refill)			
51	Sterlization Wrapping Paper (Green Paper)			
52	DISP POLYBIBS 1 Ktk (500ps)			
53	Disp Paper Cup (2000 S)			
54	Powder Free Gloves - Medium			
55	Powder Free Gloves Extra Small			
56	Powder Free Gloves Small			
57	SPRAY HANDPIECE 550ml			
59	Nicorette Patch 15mg			
60	Nicorette Patch 25mg			
61	Nicorette Gums 2 Mg			
62	Nicorette Gums 4 Mg			
63	Cotinine Rapid Test (Oral Fluid)			
64	3m Stainless Steel Crown Set For Primary Molars			
65	Steribreath Eco Mouthpiece (200 Pcs)			
66	Disposable D-Piece Adaptor (box of 12s)			
67	Gc Saliva Check Buffer Kit			

TECHNICAL WORKING GROUP

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