FIP knowledge and skills reference guide for professional development in tobacco cessation and other risk factors in NCDs

A companion to the FIP Supporting tobacco cessation and the treatment of tobacco dependence handbook for pharmacists

2023

FIP Development Goals

FIP Practice Transformation Programme on NCDs

ADVANCING PHARMACY WORLDWIDE

Colophon

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1 Background

Diabetes, cardiovascular diseases, cancer, chronic respiratory diseases and other non-communicable diseases (NCDs) are the leading cause of morbidity and mortality globally, with an estimated 74% of all deaths globally attributed to NCDs every year.[1] According to the World Health Organization (WHO), NCDs are also responsible for 86% of premature deaths in low- and middle-income countries.[1] The forces driving the global burden of NCDs are categorised into environmental, genetic, sociodemographic, medical and self-management risk factors.[2] Of the many factors under each of these categories, most NCDs share four major modifiable risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets.[3]

Excessive consumption of alcohol and use of tobacco play a major role in increasing the risk of developing NCDs. Tobacco use continues to solely account for approximately eight million deaths every year and over 200 million disability-adjusted life-years despite being one of the most modifiable risks factors.[4, 5] Additionally, excessive alcohol use and substance abuse has been shown to have a causal relationship with eight different cancers, hypertension, haemorrhagic stroke, liver disease, pancreatitis and diabetes.[6, 7] There is also substantial evidence on the causal relationship between several chronic diseases and exposure to second-hand smoke.[8, 9] Tobacco use acts in synergy with other risk factors (hypercholesterolaemia, diabetes mellitus and hypertension) to cause cardiovascular disease, thus multiplying risk for cardiovascular disease as these various risk factors cluster. As such, tobacco use and other behaviours, such as excessive alcohol use, continue to be the leading causes of preventable illness and death.

The economic burden associated with tobacco smoking is substantial. Research by Xu and colleagues on healthcare spending attributable to cigarette smoking in the United States showed that more than USD 225bn was spent annually (between 2010 and 2014) and this figure is expected to gradually increase over time.[10] A similar study by Goodchild and colleagues conducted at a global scale estimated the total economic cost of smoking in 2012 at a staggering USD 1,436bn.[10, 11] This is equivalent to 1.8% of the world's annual gross domestic product. In terms of estimated productivity losses due to tobacco smoking in the United States, Shrestha and colleagues found that the total losses due to absenteeism, presenteeism, home productivity and the inability to work amounted to USD 184.9bn in 2018.[12] While these findings largely focus on the United States, they effectively point to a larger underlying predicament. For example, a 2014 systematic review revealed the substantial economic burden of smoking in many developed and developing countries.[13]

Undoubtedly, tackling this problem requires a multifaceted and multidisciplinary approach that requires the collaboration of all sectors, including health, finance, education, agriculture, and planning to reduce the risks associated with NCDs while also promoting preventive measures. Most importantly, healthcare providers, including pharmacists, can make a positive impact by encouraging smoking cessation. While advice from healthcare professionals, including pharmacists, on smoking cessation has increased over the past decade, adult cigarette smokers still do not receive appropriate advice to quit.[14] Pharmacists can help to identify interactions between patients' drug regimens, disease states, and smoking to encourage cessation at the point of care. Pharmacist-based smoking cessation programmes are effective and result in healthcare savings.[15]

Pharmacists are ideally placed to play an active role in initiating and sustaining behaviour change. This requires a proactive approach when it comes to screening, counselling and initiating either pharmacological or behavioural interventions that promote positive behaviour change.[16] Pharmacists are freely accessible to their communities and actively interact with well and ill visitors who come to the pharmacy. This means that they have multiple opportunities to advise their clients on cessation of poor health habits while also providing specialist behavioural and pharmacological care, if trained.[17] Additionally, pharmacists can offer support at all the stages of the addictive behaviour change cycle, i.e., pre-contemplation stage, contemplation stage, preparation stage, action stage, maintenance stage and relapse.[18]

The International Pharmaceutical Federation (FIP) has recognised the public health impact of NCDs and the role of pharmacists in managing NCDs, and tobacco use and other NCD risk factors. The FIP guides on establishing tobacco-free communities and management of NCDs reaffirm this message among many others.[19-21] FIP also provides a number of knowledge and skills reference guides to assist pharmacists in their professional development to better manage NCDs.[22-26]

This publication builds on the FIP Supporting tobacco cessation and the treatment of tobacco dependence: A handbook for pharmacists and is intended to describe the knowledge and skills required for the delivery of pharmacist-led interventions to support tobacco cessation and tackle the other modifiable NCD risk factors i.e., physical inactivity,

unhealthy diet, and harmful use of alcohol. This will assist individuals with professional development as well as providers with guides for professional development modules and courses. Furthermore, this publication provides a structure to support and enhance pharmacists' continuous professional development (CPD) while also sharing key considerations for CPD providers to better support the professional development of pharmacists in tobacco cessation and other NCD risk factors.

2 FIP global competency and professional development frameworks

As medicines experts, pharmacists are key members of the wider healthcare team. Through CPD, pharmacists maintain and further their competence to practise and remain responsive to increasingly complex healthcare environments and requirements, as evidenced by their actions during the recent COVID-19 pandemic. FIP defines CPD as “the responsibility of individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional, throughout their careers”.[27] One approach to developing and maintaining competence is to embrace competency-based training, which is a structured approach to training and assessment that is directed toward achieving specific outcomes. As such, pharmacists must be assisted to acquire the skills and knowledge to enable them to perform a task to a specified standard under certain conditions, either by guidance, toolkits, CPD or professional development programmes. In competency-based training, the outcomes to be achieved are clearly stated so that learners know exactly what they must be able to do, trainers know what training or learning is to be provided, and organisations know the skill levels required of their people. The emphasis on competency-based training is on “performing” (doing) rather than just “knowing”.[27]

With wide acceptance of implementing competency-based training and education in health professions, competency frameworks are useful in organising educational curricula, regulating career entry, benchmarking standards of practice and facilitating expertise development.[27] FIP has developed two global frameworks that describe generic competencies for foundation and advanced pharmacy practice.

The FIP Global Competency Framework (GbCF), updated in 2020, is a set of competencies and core behavioural statements that are intended to be generally applicable for the pharmacy workforce worldwide, particularly targeting early-career (foundation-level) pharmacists.[28] The GbCF includes 124 behavioural statements grouped under 23 competency domains and four broad competency clusters: pharmaceutical public health, pharmaceutical care, organisation and management, and professional and personal competencies.

The FIP Global Advanced Development Framework (GADF) is a complementary framework to the GbCF published in 2020.[29] The GADF is intended to support the professional development and recognition of pharmacists and pharmaceutical scientists and maps broad-based advanced practice stages across developmental competencies. Six developmental competency clusters are described in the GADF: expert professional practice; working with others; leadership; management; education, training, and development; and research and evaluation.

Both the GbCF and GADF are intended to act as mapping tools for individuals to progress towards effective and sustained performance and to pave the way for advanced and specialist practice.

Therefore, FIP recommends that individuals use the wide-ranging knowledge and skills reference guides in conjunction with the FIP competency and development frameworks to identify the knowledge, skills and behaviours that will be relevant to support them in developing their practice (see Figure 1). Pharmacists are expected to draw upon their previously acquired knowledge, skills, attitudes, and values that may intersect with other competency areas to deliver patient-centred services. A FIP reference guide provides guidance on knowledge and skills related to a specific topic. This encourages cross-learning and transfer of key knowledge and skills. The tools provided by FIP, including competency frameworks and knowledge and skills reference guides, inform continuing development and practices, including approaches to self-assessment as part of registration or licensing requirements, professional development, and self-directed learning as well as guidance for providers of CPD and training programmes.

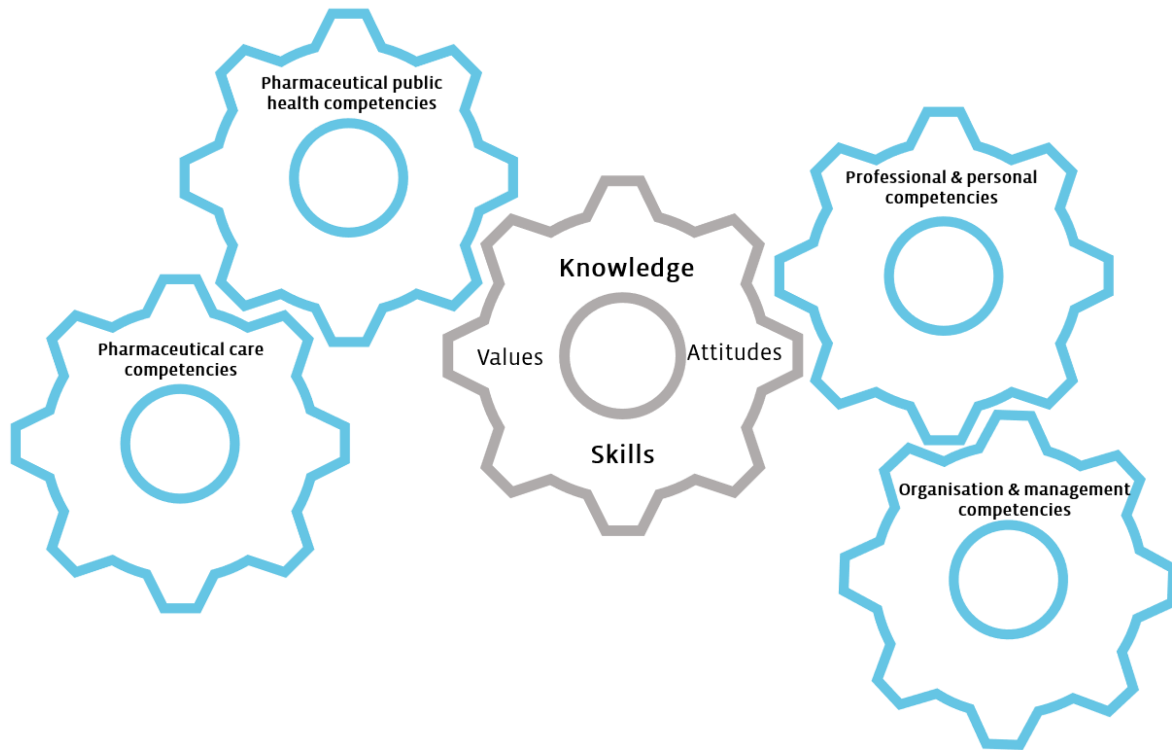

Figure 1. Competencies encompass an array of knowledge, skills, attitudes and values to enable effective performance. Competency clusters are based on the FIP Global Competency Framework.[28]

3 Pharmacist professional development: Knowledge and skills reference guide

3.1 About the guide content

This knowledge and skills guide provides a comprehensive reference list of knowledge and skills in pharmaceutical and related care to support pharmacists to develop, upskill and refresh knowledge and skills for managing patients with tobacco addiction. This guide supplements the FIP Supporting tobacco cessation and the treatment of tobacco dependence: A handbook for pharmacists and was developed in consultation with a global reference group (see Acknowledgments).

Tables 1 and 2 below build on existing FIP resources to date, current learning and teaching tools, curricula and expert review through a reference group.[19-21, 30] The reference group, made up of educators and practitioners with experience in professional development in tobacco cessation and associated NCDs risk factors, reviewed the statements in the tables and agreed on the content.

3.2 How is the information organised?

The guide is organised in two parts.

The first part (refer to Tables 1 and 2) describes the knowledge required by pharmacists in tobacco cessation roles, providing care to tobacco addiction patients, and managing other associated NCD risk factors. In the knowledge guide, topics are grouped into three categories (Figure 2):

- Broad topic area — includes main categories such as body systems, pharmaceutical care, public health and advocacy, ethics and collaborations. Many of these categories are linked to the GbCF competency clusters.
- Core topics — identifies key topic areas (knowledge areas) related to the roles and services provided in the management of tobacco addiction.
- Specific topics — describes specific topics stemming from the core topics.

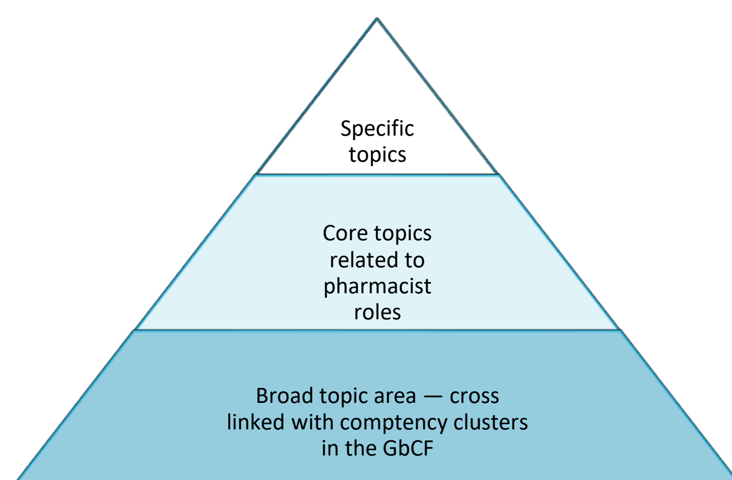

Figure 2. Hierarchy of topic grouping in the knowledge guide

The second part (refer to Tables 3 and 4) describes skills required by pharmacists for tobacco cessation roles and the management of other NCD risk factors.

3.3 Who is this for?

This reference guide is intended to guide practice in tobacco cessation and managing other NCD risk factors rather than to be a prescriptive list that must be adhered to in all cases. It is relevant to pharmacists focusing on a specific area(s) of practice and may be relevant at any stage of professional development, depending on the pharmacist's role. It is intended to support pharmacists in performing roles in tobacco cessation and providing safe and effective interventions for other NCD risk factors. It is also intended to help educators and CPD providers in the area of tobacco cessation and NCDs risk factors to support pharmacists' professional development.

3.4 How to use it?

This reference guide can be used:

- To support pharmacists as they upskill in the area of tobacco cessation and risk factors in NCDs, and as part of their course of professional and career development;
- To help pharmacists with an interest in providing tobacco cessation services in their area of practice; and
- To inform the design and delivery of education and training programmes by CPD providers.

3.5 Contextualisation, and regulatory and training requirements

It is crucial to recognise that pharmacists must comply with their local, national and jurisdictional requirements for training, certification and regulatory/professional and ethical standards to fulfil their specified roles. These may include:

- Appropriate training relevant to their scope of practice and level of specialisation in the management of tobacco addiction and other NCD risk factors;
- Adherence to code of conduct and ethics;
- Participation in nationally developed certificate training programmes or board certification; registration or licensure status;
- Membership of professional organisations; and
- Adherence to healthcare jurisdiction regulations concerning the education, competencies and duties of pharmacists and other healthcare professionals.

Table 1: Knowledge guide for pharmacists in tobacco cessation[31-47]

Therapeutic area	
Body system	**Demonstrate knowledge and understanding of:**
Anatomy and physiology	• Anatomy and function of the respiratory system. • Anatomy and function of the central nervous system, including the physiology of brain activity and brain areas that are implicated in nicotine addiction and behavioural changes. • Anatomy and function of the endocrine system, including hormonal changes that relate to nicotine use and behavioural changes.
Disease particulars	**Demonstrate knowledge and understanding of:**
Nicotine addiction	• The range and types of tobacco products, including nicotine vaping products and vaping devices, and their health impact. • Pathophysiology of nicotine addiction/dependence. • The three dimensions of nicotine addiction — physical dependence, psychological dependence, and behavioural and social dependence.
Nicotine withdrawal	• The signs and symptoms of nicotine withdrawal, including depressed mood, insomnia, irritability, frustration, anger, anxiety, craving, difficulty in concentration, restlessness, decreased heart rate and increased appetite or weight gain.
Smoking-induced diseases	• Different smoking-induced diseases, including cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary diseases, such as emphysema and chronic bronchitis. • Different complications associated with smoking, including tuberculosis, certain eye diseases and asthma. • Autoimmune diseases associated with smoking, including rheumatoid arthritis.
Public health and advocacy	
Public health strategies	**Demonstrate knowledge and understanding of:**
Advocacy and prevention	• Effective tobacco control measures including the six MPOWER strategies, i.e., monitoring tobacco use and prevention policies, protecting people from tobacco smoke, offering help to quit smoking, warning about the dangers of tobacco, enforcing bans on tobacco advertising, promotion and sponsorship, and raising taxes on tobacco. • Signposting as a method of providing brief smoking cessation advice. • Smoking as a modifiable risk factor for NCDs and the pathophysiology of nicotine in causing NCDs.
Screening and referral	• The populations at risk from tobacco use, including people living with diabetes, chronic respiratory disorder, pregnancy, mental illness, cancer and cardiovascular diseases. • The Fagerström questionnaire as a screening tool for nicotine dependence. • The DSM-IV criteria as a screening tool for nicotine withdrawal.

	• The referral networks within one's area of practice and when to refer patients for further specialised care.
Patient education	• Concepts related to smoking and smoking cessation for proper patient education. • Benefits of smoking cessation, including improved heart rate, improved blood pressure drop, improved carbon monoxide level, improved blood circulation, improved lung function increases as well as decrease in coughing and shortness of breath, decrease in risk for coronary heart disease, lung cancer other cancers of the mouth, throat, oesophagus, bladder, cervix and pancreas. • Approaches to smoking cessation, including use of digital tools, telephone support, self-help materials, tools for pharmacists' assessment on tobacco addiction, tools to support quit attempt and promote long-term tobacco abstinence. • Perceived barriers to quitting, smoking triggers and cues such as withdrawal symptoms and cravings, stress, fear of failure, peer and social pressure, and weight gain.
Pharmaceutical care	
Special population groups	**Demonstrate knowledge and understanding of:**
Children and adolescents	• The mental and social impact of smoking on children and adolescents. • The considerations for combatting adolescent cigarette smoking must include both primary prevention and smoking cessation. • Evidence-based pharmacotherapy considerations for children and adolescents at risk of nicotine dependence, e.g., individualisation and combination with psychosocial and behavioural interventions. • Evidence-based behavioural and psychological interventions to assist children and adolescents at risk of smoking and nicotine dependence. • Harmful effect of e-cigarettes.
Older adults	• The mental and social impact of smoking interventions on older adults. • Evidence-based pharmacotherapy considerations for older adults who are at a higher risk of nicotine dependence, such as avoiding polypharmacy and considering underlying disease conditions. • Evidence-based behavioural and psychological interventions to assist older adults at risk of developing NCDs.
Pregnancy and lactation	• The mental health and social impact of smoking on pregnant women and its effect on the unborn baby. • Pregnancy-specific conditions that emanate from or are aggravated by smoking, e.g., pre-eclampsia, gestational diabetes, peripartum cardiomyopathy, obstetric fistula, postpartum depression, ectopic pregnancy, miscarriages, stillbirths, birth defects such as cleft palate, and low birth weight.

	• Evidence-based pharmacotherapy considerations when managing pregnancy-specific conditions that emanate from or are aggravated by smoking. • Evidence-based behavioural and psychological interventions to promote smoking cessation in pregnant women. • Referral mechanisms and when to refer for more specialised care. • Patient-centred approaches to care and tailoring treatment care plans to patient needs.
Passive smokers	• The physical, mental and social impact of passive and second-hand smoking on individuals.
Low income, low literacy and disabled individuals	• The physical, mental and social impact on individuals experiencing financial burden and low literacy. • Patient-centred approaches to care and tailoring treatment care plans to patient needs. • Referral mechanisms and access to facilities
Non-pharmacological interventions	**Demonstrate knowledge and understanding of:**
Individualised counselling	• Personalised pharmacy-based smoking cessation counselling approaches, including standardised smoking cessation advice. • Approaches that enhance motivation for change through self-examination and identification of ambivalence to change and the subsequent resolution leading to sustained positive behaviour change. • Frequency of individualised patient counselling such as weekly for a period of at least 4 weeks before the planned quit date.
Group behavioural therapy	• Group behavioural therapy programmes and their effectiveness in comparison with other non-pharmacological interventions.
Telephone counselling/quit lines	• Scenarios where telephone counselling may be a preferred intervention to promote smoking cessation, e.g., in resource limited settings. • Evidence-based implementation approaches to telephone counselling have a higher impact and yield greater benefits. • Integration of telephone counselling to larger smoking cessation services, campaigns or programmes.
Self-help interventions	• Self-help materials including manuals leaflets, videos/DVDs, audio recordings or internet-based materials or structured programmes that can be used by individuals to promote smoking cessation. • The target population for self-help materials, especially smokers in the general population or specific populations such as those with long-term conditions or low literacy and disabled or pregnant women.
Brief advice/intervention	• The 5As model of brief tobacco interventions for patients ready to quit— ask, advise, assess, assist and arrange follow-up. • The 5Rs brief motivational interventions for patients not ready to quit — relevance, risks, rewards, roadblocks and repetition.

Pharmacological interventions	**Demonstrate knowledge and understanding of:**
Varenicline	• The pharmacokinetics and pharmacodynamics of varenicline when used for smoking cessation. • The management of relapse during the use of varenicline. • Possible side effects associated with varenicline use and management of these side effects. • Special considerations among specific populations and contraindications to the use of varenicline.
Bupropion	• The pharmacokinetics and pharmacodynamics of bupropion when used for smoking cessation. • The advantages and disadvantages of bupropion as a smoking cessation intervention over other medicines. • The safety profile of bupropion in individuals with underlying conditions. This includes understanding possible side effects and the management of these side effects. • Special consideration among specific populations and contraindications to the use of bupropion.
Nicotine replacement therapy	• Primary benefits of nicotine replacement therapy compared with other pharmacological interventions.
Medicines information	**Demonstrate knowledge and understanding of:**
	• Trusted sources of evidence-based medicines information, such as textbooks, databases, websites, journals and reports, and their advantages and disadvantages. • Helplines that provide free counselling or coaching to help patients quit smoking.
Organisation and management	
Stewardship of medicines supply, availability, and affordability	**Demonstrate knowledge and understanding of:**
	• Requirements for the safe storage and transport of medicines used for the management of smoking cessation, and how deviation from recommended practice should be assessed and managed. • Availability and affordability of essential medicines for the management of smoking cessation. • Factors influencing the stability of medicines, including factors relating to packaging of medicines, how these relate to product shelf-life, and how the stability of medicines is influenced by storage and supply.
Professional	
Multidisciplinary care	**Demonstrate knowledge and understanding of:**
	• Expertise, roles and responsibilities of each colleague and member of the healthcare team involved in the management smoking cessation, including education specialists, psychologists and mental healthcare providers. • Need for continuous education and professional development on smoking cessation and to stay up to date with current

	national and international recommendations for its management.
Ethical practice	**Demonstrate knowledge and understanding of:**
	• Pharmacy code of ethics and how it applies to pharmacist-patient interactions, informed consent, access to patient data and analysis of these data, whether in the context of scientific publications.
Policies, regulations and guidelines	
Policies, regulations and guidelines	**Demonstrate knowledge and understanding of:**
	• Relevant policies, regulations and guidelines to support provision of services to people at risk of nicotine dependence.
Medicines safety	**Demonstrate knowledge and understanding of:**
	• Local and national incident reporting processes to pharmacovigilance authorities and appropriateness of incident reporting. • Common errors associated with pharmaceutical packaging and labelling, and their causes. • Pharmaceutical risks associated with prescribing, supply and dispensing, storage, and administration of medicines used in managing smoking cessation.
Healthcare systems	**Demonstrate knowledge and understanding of:**
	• Healthcare systems regulations to facilitate uninterrupted access to medicines, devices and supplies necessary to treat and self-manage smoking cessation and related complications.

Table 2: Knowledge guide for pharmacists on other NCD risk factors[2, 48-66]

Therapeutic area	
Body system	**Demonstrate knowledge and understanding of:**
Anatomy and physiology	• Anatomy and function of the hepatic system including the pharmacokinetic and pharmacodynamic changes that may occur in patients with liver disease. • Anatomy and function of the central nervous system and the complications that can occur due to substance abuse. • Pathophysiology of dyslipidaemias and how they relate to obesity and being overweight. • Pathophysiology of substance use, misuse and addiction.
Associated complications	**Demonstrate knowledge and understanding of:**
Alcoholic liver disease	• Causes, signs and symptoms, prevention and exacerbating factors. • Diagnosis, including screening for alcoholic liver disease and scoring systems for assessing disease severity. • Pharmacological interventions for alcoholic liver disease, including usual doses, administration routes, place in therapy with regard to guidelines and evidence, mechanism of action, pharmacokinetics and adverse effects. • Drug-drug, drug-patient and drug-disease interactions in managing alcoholic liver disease and how to optimise patient adherence. • Clinical monitoring parameters, including identification, prioritising and actions to ensure appropriate monitoring. • Non-pharmacological interventions that have been shown to be useful in reducing alcohol liver disease, e.g., nutrition. • Complications of alcoholic liver disease, i.e., alcoholic cirrhosis, alcohol-related fibrosis and how to manage patients who present with signs and symptoms of these complications.
Alcohol dependence	• Causes, signs and symptoms and risk factors for developing alcohol dependence. • Diagnosis, including screening tests and physiological indicators of alcohol exposure. • Pharmacological interventions for alcohol dependence, including usual doses, administration routes, place in therapy with regard to guidelines and evidence, mechanism of action, pharmacokinetics and adverse effects. • Drug-drug, drug-patient and drug-disease interactions in managing alcohol dependence and how to optimise patient adherence. • Complications of alcohol dependence and withdrawal, i.e., delirium tremens, Wernicke encephalopathy, hepatic encephalopathy and Korsakoff syndrome. • Signs and symptoms of complications of alcohol dependence and withdrawal. • Non-pharmacological interventions that have been shown to be useful in reducing alcohol dependence, e.g., behavioural counselling interventions, support groups. • Clinical monitoring parameters, including identification, prioritising and actions to ensure appropriate monitoring.
Obesity	• Causes, signs and symptoms and risk factors for developing obesity. • Diagnosis of obesity, including screening tests for people with obesity. • Complications of obesity, i.e., type 2 diabetes, gallbladder disease, non-alcoholic fatty liver disease, gout and cancers, and how to manage patients with signs and symptoms of these complications. • Pharmacological interventions for obesity, including usual doses, administration routes, place in therapy with regard to guidelines and evidence, mechanism of action, pharmacokinetics and adverse effects.

	• Drug-drug, drug-patient and drug-disease interactions in managing obesity and how to optimise patient adherence. • Non-pharmacological interventions that have been shown to be useful in managing obesity, e.g., nutrition and exercise, behavioural counselling, bariatric surgery and peer support • Clinical monitoring parameters, including identification, prioritising and actions to ensure appropriate monitoring.
Dyslipidaemia	• Causes, signs and symptoms and risk factors for developing dyslipidaemia. • Diagnosis of dyslipidaemias, including laboratory measurement of lipids and lipoproteins. • Pharmacological interventions for dyslipidaemia, including usual doses, administration routes, place in therapy with regard to guidelines and evidence, mechanism of action, pharmacokinetics and adverse effects. • Drug-drug, drug-patient and drug-disease interactions in managing dyslipidaemia and how to optimise patient adherence. • Non-pharmacological interventions that have been shown to be useful in managing dyslipidaemia, e.g., lifestyle modifications and dietary supplements. • Clinical monitoring parameters, including identification, prioritising and actions to ensure appropriate monitoring. • Complications of dyslipidaemia, i.e., cardiovascular disease, stroke, and type 2 diabetes mellitus, and how to manage patients with signs and symptoms of these complications.
Chronic malnutrition	• Causes, signs and symptoms and risk factors for developing chronic malnutrition. • Diagnosis of chronic malnutrition, including screening and admission indicators. • Interventions for initial treatment and rehabilitation of chronic malnutrition, e.g., dietary treatment, rehydration, vitamin A replenishment, prophylaxis for infections, and emotional and physical stimulation during rehabilitation. • Clinical monitoring parameters, including identification, prioritising and actions to ensure appropriate monitoring. • Complications of chronic malnutrition, i.e., hypoglycaemia, hypothermia, anaemia and congestive heart failure, and how to manage patients with signs and symptoms of these complications.
Public health and advocacy	
Prevention strategies	**Demonstrate knowledge and understanding of:**
Risk factors	• The modifiable and non-modifiable risk factors for NCDs and the pathophysiology of each of the main non-modifiable risk factors in causing NCDs. • The mental health impact of NCD risk factors and its effect on the recovery process.
Psychological and behavioural interventions	• Evidence-based psychological and behavioural interventions that can be implemented within one's area of practice, e.g., motivational interviewing, behavioural counselling, individualised self-help quitting manuals, meal replacements, obesity counselling. • The multi-theory model of health behaviour changes and how it can be used to initiate and sustain behaviour change. • Digital health tools that can be used to augment the behaviour change process in clients at risk of developing NCDs.
Lifestyle interventions	• Evidence-based lifestyle interventions that have been shown to prevent the development of NCDs, e.g., weight reduction, increase in physical activity.

	• Evidence-based nutrition interventions that prevent the development of NCDs, e.g., Mediterranean diet, reduced salt and sugar intake, reduced processed meat consumption.
Advocacy	• Structured public health prevention programmes and campaigns, and support groups to tackle NCD risk factors. • Social and other determinants of health, e.g., ageing, globalisation and urbanisation, and how they impact the prevalence and effectiveness of interventions for NCD risk factors.
Screening and referral	• National evidence-based screening tests and guidelines. • Risk assessment and risk prediction models used to determine those at high risk of developing complications from NCD risk factors. • Screening tests for each of the NCD risk factors. • Multidisciplinary referral systems, including referrals to dieticians, nutritionists, exercise physiologists, psychologists or structured group programmes.
Self-care	• Self-care and its importance in the management of NCD risk factors. • Various evidence-based self-care practices and systems in the management of NCD risk factors, such as development of self-management plans, medication reminder systems, diet reminder systems, self-monitoring of vital signs, physical activity reminder systems, and stress management and relaxation techniques.
Communication	• Importance of language strategies on core attitude change, social perception, understanding of NCD risk factors, treatment outcomes and psychosocial well-being of the individual. • Methods of questioning and resources available to appropriately educate or assess a patient's needs regarding information on NCD risk factors, including shared decision making. • Various elements to consider when communicating to patients about NCD risk factors, including cultural and ethnic, disability, socioeconomic, gender, literacy and numeracy, behavioural, time and urgency factors. • Importance of didactics, practicums and workshops in boosting the patient education process.
Pharmaceutical care	
Medicines	**Demonstrate knowledge and understanding of:**
Medicines for alcoholic liver disease	• Commonly used medicines in the management of alcoholic liver disease, i.e., naltrexone, acamprosate, baclofen and disulfiram. • Novel pharmacotherapy approaches that are showing promise in the management of alcoholic liver disease, such as pentoxifylline, glucocorticoids. • Medicines use, including drug-food interactions, treatment goals, optimisation of therapy in accordance with treatment goals, and the effects of the medicine on morbidity and mortality. • Medicine-specific considerations that require patient education or counselling.
Medicines for alcohol withdrawal	• Commonly used medicines in the management of alcohol withdrawal, i.e., benzodiazepines, beta-blockers, clonidine, phenothiazines and anticonvulsants. • Medicines use, including drug-food interactions, treatment goals, optimisation of therapy in accordance with treatment goals, and the effects of the medicine on morbidity and mortality. • Medicine-specific considerations that require patient education or counselling.

Medicines for overweight and obesity	• Commonly used medicines in the management of overweight and obesity, i.e., orlistat, phentermine-topiramate, naltrexone-bupropion, liraglutide, semaglutide. • Medicines use, including drug-food interactions, treatment goals, optimisation of therapy in accordance with treatment goals, and the effects of the medicine on morbidity and mortality. • Medicine-specific considerations that require patient education or counselling.
Medicines for dyslipidaemia	• Commonly used medicines in the management of dyslipidaemia, i.e., statins, resins, fibrates, niacin. • Novel medicines for the management of dyslipidaemia, e.g., proprotein convertase subtilisin/kexin type 9 inhibitors, microsomal triglyceride transfer protein inhibitors. • Medicines use, including drug-food interactions, treatment goals, optimisation of therapy in accordance with treatment goals, and the effects of the medicine on morbidity and mortality. • Medicine-specific considerations that require patient education or counselling.
Medicines for chronic malnutrition	• Commonly used medicines in the management of complications presenting from chronic malnutrition, such as antibiotics for infections, potassium-sparing diuretics for hypokalaemia, and glucagon for hypoglycaemia. • Medicines use, including drug-food interactions, treatment goals, optimisation of therapy in accordance with treatment goals, and the effects of the medicine on morbidity and mortality. • Medicine-specific considerations that require patient education or counselling.
Medicines information	**Demonstrate knowledge and understanding of:**
Pharmacists and pharmacy organisations' roles	• Common or contextualised information sources used when answering enquiries on medication for NCD risk factors, including administration of medicines, adverse drug reactions, alternative medicines, interactions, compatibility of parenteral medicines together with their advantages and disadvantages. • Trusted sources of evidence-based information, such as textbooks, databases, websites, journals and reports, and their advantages and disadvantages. • Effective use of patient and carer interviews to gather all relevant background information to establish the nature of a medicines enquiry and to be able to provide the best and most individualised response.
Special population groups	**Demonstrate knowledge and understanding of:**
Children and adolescents	• The mental and social impact of NCD risk factors on children and adolescents. • Screening tests for NCD risk factors in children and adolescents in the primary care setting, e.g., Body-Mass Index (BMI), Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) and the Single Alcohol Screening Question (SASQ). • Evidence-based pharmacotherapy considerations for children and adolescents at risk of developing NCDs. • Evidence-based behavioural and psychological interventions to assist children and adolescents at risk of developing NCDs.
Older adults	• The mental and social impact of NCD risk factors on older adults. • Evidence-based pharmacotherapy considerations for older adults who are at a higher risk of developing NCDs. • Evidence-based behavioural and psychological interventions to assist older adults at risk of developing NCDs.
Pregnancy and lactation	• The mental health and social impact of NCD risk factors on pregnant women and how this might affect the unborn baby.

	• Screening tests for NCD risk factors in pregnant women in the primary care setting, e.g., BMI, AUDIT-C and the SASQ. • Pregnancy-specific conditions that emanate from or are aggravated by NCD risk factors, e.g., pre-eclampsia, gestational diabetes, peripartum cardiomyopathy, obstetric fistula and postpartum depression. • Evidence-based pharmacotherapy considerations when managing pregnancy-specific conditions and lactating women. • Evidence-based behavioural and psychological interventions to prevent the development of NCDs in pregnant and lactating women.
Organisation and management	
Stewardship of medicines supply, availability and affordability	**Demonstrate knowledge and understanding of:**
	• Requirements for the safe storage and transport of medicines used to treat complications of NCD risk factors, and how deviation from recommended practice should be assessed and managed. • Availability and affordability of essential medicines for the management of complications of NCD risk factors. • Factors influencing the stability of medicines, including factors relating to packaging of medicines, how these relate to product shelf-life, and how the stability of medicines is influenced by storage and supply.
Professional	
Multidisciplinary care	**Demonstrate knowledge and understanding of:**
	• Expertise, roles and responsibilities of each colleague and member of the healthcare team involved in the management of NCD risk factors and their complications, including education specialists, dieticians, nutritionists, nurse educators, exercise and rehabilitation specialists and mental healthcare providers. • Need for continuous education and professional development on NCD risk factor management and to stay up to date with current national and international recommendations for the management of NCD risk factors
Ethical practice	**Demonstrate knowledge and understanding of:**
	• Pharmacy code of ethics and how it applies to pharmacist-patient interactions, informed consent, access to patient data and analysis of these data in the context of scientific publications.
Policies, regulations and guidelines	
Policies, regulations and guidelines	**Demonstrate knowledge and understanding of:**
	• Relevant policies, regulations, and guidelines to support provision of services to people at risk of developing NCDs.
Medicines safety	**Demonstrate knowledge and understanding of:**
	• Local and national incident reporting processes to pharmacovigilance authorities and appropriateness of incident reporting. • Common errors associated with pharmaceutical packaging and labelling, and their causes.

	• Pharmaceutical risks associated with prescribing, supply and dispensing, storage, and administration of medicines used in managing NCD risk factors and their complications.
Healthcare systems	**Demonstrate knowledge and understanding of:**
	• Healthcare systems regulations to facilitate uninterrupted access to medicines, devices and supplies necessary to treat and self-manage NCD risk factors and related complications.

Table 3: Associated skills for pharmacists in tobacco cessation.[67, 68]

Public health and advocacy	
Advocacy and prevention	• Actively monitor and encourage adherence to smoking cessation interventions. • Provide continuous education for patients, signposting to the public on the benefits of smoking cessation. • Educate patients on associated risk of smoking. • Actively participate in quality improvement programmes and public health campaigns for smoking cessation. • Actively participate and implement tobacco control measures, including the six MPOWER strategies, i.e., monitoring tobacco use and prevention policies, protecting people from tobacco smoke, offering help to quit smoking, warning about the dangers of tobacco, enforcing bans on tobacco advertising, promotion and sponsorship, and raising taxes on tobacco. • Actively supporting quit smoking peer and group support programmes in the community
Patient education	• Educate patients on the concepts related to smoking and smoking cessation. • Educate on the benefits of smoking cessation, including improved heart rate, improved blood pressure, improved carbon monoxide level, improved blood circulation and improved lung function, as well as decreases in coughing and shortness of breath, risk of coronary heart disease, lung cancer, and cancers of the mouth, throat, oesophagus, bladder, cervix and pancreas. • Educate on approaches to smoking cessation, including use of digital tools, telephone support, self-help materials, tools for pharmacists' assessment of tobacco addiction, tools to support quit attempts and promote long-term tobacco abstinence. • Educate on perceived barriers to quitting, smoking triggers and cues, such as withdrawal symptoms and cravings, stress, fear of failure, peer and social pressure, and weight gain. • Educate patients on self-care interventions that promote smoking cessation. • Educate patients on medication adherence measurement tools and promote evidence-based interventions that enhance medication adherence.
Communication	• Use neutral, non-judgemental, fact-based, inclusive and person-centred language. • Use proper questioning methods to identify and address the needs of patients being managed with smoking cessation. • Recognise and respect cultural diversity when communicating with patients from a background different to one's own. • Tailor communications to suit patients' cultural, socioeconomic, disability, gender, literacy, numeracy, behavioural, time and urgency factors. • Undertake all consultations in an appropriate setting, minimising interruptions and maintaining verbal, auditory and personal privacy.
Screening and referral	• Identify and comprehensively assess an individual's risk of nicotine dependence using evidence-based assessment tools. • Identify patients in need of smoking cessation interventions as well as populations at risk from tobacco use, including people living with diabetes, chronic respiratory disorder, pregnancy, mental illness, cancer or cardiovascular diseases. • Communicate population trends and screening results to key stakeholders. • Screen patients using the Fagerström questionnaire and DSM-IV criteria • Refer patients requiring further care to appropriate general practitioners or specialists within area of practice.
Cultural interventions	• Identify and assess cultural influences, social determinants of health, health beliefs, religion, learning preferences and barriers, literacy, disability and numeracy to adapt communication and education approaches accordingly.

Non-pharmacological interventions	• Implement non-pharmacological interventions for patients, including individualised patient counselling, group behavioural therapy, telephone counselling and quit lines, self-help interventions, health promotion awareness and brief therapies. • Effectively communicate personalised pharmacy-based smoking cessation counselling, including standardised smoking cessation advice. • Promote and encourage behavioural interventions including multi-theory model of health behaviour change, behavioural science for psychological dependence, • Implement the 5As framework (ask, assess, advise, assist and arrange follow-up) during counselling. • Implement the 5Rs framework (relevance, risks, rewards, roadblocks and repetition). • Identify perceived barriers to quitting, smoking triggers and cues during counselling. • Deliver motivational interviewing using appropriate techniques. • Advise the patient to identify and compare reasons for wanting (pros) and not wanting (cons) to change their smoking behaviour i.e., the decisional balance motivational strategy. • Advise patient on how to avoid exposure to specific social and contextual or physical cues for smoking behaviour, including changing daily or weekly routines.
Patient follow-up (relapse prevention)	• Identify which patient requires a follow up and the best way to implement the follow up strategy. • Develop a schedule of when to follow up the patient and carefully consider what to say to the patient. • Identify when to taper follow up and implement further steps on case-by-case scenario such as referral or successful smoking cessation
Medicines	
Medicines for managing smoking cessation	• Apply pharmacotherapeutic knowledge and be the medicines therapy expert for managing smoking cessation. • Work with patients and multidisciplinary care teams to simplify medication regimens and find lower cost medicines where a need is identified. • Thoroughly assess prescribed medicines for smoking cessation and determine whether patients are experiencing any adverse effects that may be related to these medicines. • Monitor patient response to these medicines in line with set treatment goals. • Identify, discuss and implement strategies that address patients' concerns about their medicines. • Assess and communicate to patients risks and benefits of smoking cessation medicines. • Educate and counsel patients on medicine-specific considerations for other underlying NCD medication.
Medicines information	• Identify sources, evaluate, assess and provide appropriate medicines information according to the needs of the patient being managed for smoking cessation. • Counsel patients being managed for smoking cessation on the safe and rational use of medicines and devices, including use, contraindications, interactions, storage, adverse effects and side effects of medicines. • Support patients' use of health information technologies, digital communications and health solutions. • Provide accurate evidence-based information on non-pharmacological interventions for patients being managed for smoking cessation.
Medicine use and supply	• Educate patients on proper storage conditions for their medicines to maintain efficacy and shelf-life. • Ensure that the smoking cessation medicines are stored appropriately at the pharmacy by checking most important stability parameters, including humidity, temperature and expiry date. • Make sure that information on appropriate medicines route and time of administration, doses, dosage forms, documentation is communicated effectively to each patient under your care.

	• Thoroughly assess medicine prescriptions for authenticity, and therapeutic and pharmaceutical appropriateness. • Consult with patient, carer or prescriber to address any issues identified in the prescription. • Monitor medicines supply chains to ensure quality of medicines supplied, their rational use and safe disposal. • Comply with national and professional guidelines when administering injectable medicines or supervising medicine dosing.
Pharmaceutical care plan	
Patient risk assessment	• Identify and comprehensively assess an individual's risk of developing nicotine dependence using evidence-based risk assessment tools.
Developing and implementing a care plan	• Co-create with the patient/caregiver treatment and monitoring plans, including access to treatment facilities for patients being managed for smoking cessation and follow-up to ensure adherence and achievement of set treatment targets.
Monitoring care plan	• Schedule time for care planning based on routine patient visits or overt patient need. • Effectively communicate and document specific responsibilities in the treatment care plan process. • Share treatment plan documentation with patients in a timely manner. • Implement, conduct and maintain a reporting system for pharmacovigilance (e.g., reporting of adverse drug reactions). • Relapse prevention strategies that aim to assist people to avoid or cope with high-risk smoking situations.
Special population groups	
Older adults	• Effectively communicate to patients and caregivers specific precautions and considerations for pharmacological and non-pharmacological management of older adults with nicotine dependence.
Pregnancy and lactation	• Educate pregnant women being managed for nicotine dependence on general reproductive health considerations during preconception care, antepartum, intrapartum and postpartum periods. • Communicate and initiate evidence-based pharmacological and non-pharmacological management for smoking cessation in pregnancy. • Appropriately prevent and manage complications of smoking cessation in pregnant women. • Assess medicines given for smoking cessation to pregnant and lactating women for appropriateness and safety, considering the medicines contraindicated during pregnancy and lactation.
Children and adolescents	• Screen paediatric and adolescent patients and their parents for tobacco use • Provide a strong and personalised message regarding the importance of totally abstaining from tobacco use. • Counsel and use behavioural interventions on children and adolescents with modified content appropriate for their age. • Consider prescriptions for bupropion sustained release or nicotine replacement therapy when there is evidence of nicotine dependence and a desire to quit tobacco use. • Offer tobacco use cessation advice and interventions to parents to limit children's exposure to second-hand smoke. • Refer children and adolescents with nicotine dependence to appropriate education and support programmes and groups where necessary. • Identify signs related to mental health issues among children and adolescents being managed for nicotine dependence and refer to appropriate mental health professionals.

	• Use cognitive behavioural interventions that include changing the young smokers' thoughts and beliefs around tobacco use.
Passive smoking/second hand smoke	• Screen the public for risk of passive smoking and second hand smoke inhalation. • Provide a strong and personalised message regarding the importance of totally abstaining from passive smoking and second-hand smoke inhalation.
Professional	
Multidisciplinary care and interprofessional collaboration	• Establish contact, respect and trust with colleagues and other healthcare professionals while respecting individual and cultural differences. • Communicate effectively with health and social care staff; support staff, patients, caregivers, and relatives using lay terms, and check understanding. • Work collaboratively with other healthcare professionals to identify gaps in the care plan and improve outcomes for the patient. • Serve as a medicines expert for the multidisciplinary team and organisation and as a resource for topics related to smoking cessation care and education. • Recognise the value of the pharmacy team and multidisciplinary team. • Mitigate risk of medicines shortages and stock-outs through liaison and appropriate communication with healthcare staff, healthcare stakeholders and patients. • Promote and support opportunities for learning that enhance the practice of colleagues, pharmacy students and other healthcare professionals in management of smoking cessation. • Identify and respond to gaps in knowledge, skills and professional behaviours of others in relation to smoking cessation.
Ethical practice	• Maintain privacy and confidentiality with the patient and other healthcare professionals.
Policies, regulations and guidelines	
Policies, regulations and guidelines	• Stay abreast of relevant policies, regulations and guidelines that support provision of quality healthcare services to patients being managed with smoking cessation. • Participate in the development of regulations and guidelines for smoking cessation management and support dissemination of these guidelines to other healthcare providers.
Healthcare systems	• Communicate to stakeholders and policymakers the local impact of smoking cessation interventions and policies. • Participate in the establishment or implementation of initiatives and services designed to improve population outcomes for smoking cessation and prevention. • Identify and address system-based barriers that could hinder patients with nicotine dependence from accessing optimal care, including individual factors, cultural practices and economic factors. • Identify organisational and systemic solutions and provide support for overcoming barriers to medication adherence.

Table 4: Associated skills on other risk factors in NCDs[20, 69-76]

Public health and advocacy	
Advocacy	• Actively monitor and encourage medication adherence. • Provide disease and medication education for patients, caregivers and other healthcare professionals. • Educate patients on the modifiable risk factors for NCDs and how to mitigate these risk factors. • Encourage evidence-based lifestyle interventions in mitigating the impact of NCD risk factors such as low salt and sugar intake, increased physical activity, weight reduction and reduced consumption of processed meat. • Encourage initiation of evidence-based psychological and behavioural interventions to assist in promoting healthy behaviour change such as motivation interviewing and behavioural counselling. • Use digital health tools to augment and sustain behaviour change. • Actively participate in quality improvement programmes and public health campaigns to tackle NCD risk factors.
Screening and referral	• Use evidence-based screening tools to identify and comprehensively assess an individual's risk of developing complications from NCD risk factors. • Conduct preventive health screening tests among identified at-risk populations, e.g., body-mass index, lipid profile, blood pressure. • Refer patients requiring further care to appropriate general practitioners or specialists within one's area of practice.
Culturally appropriate interventions	• Identify and assess the influence of culture on social determinants of health, i.e., the impact culture has on health beliefs, learning barriers and communication, and how to adapt interventions to different cultural contexts, including vulnerable communities such as the deaf and blind, stigmatised groups and financially disadvantaged populations. • Recognise and respect cultural and ethnic diversity when communicating with patients from a background different to one's own.
Communication	• Use neutral, non-judgemental, fact-based, inclusive and person-centred language contextualized to the needs of population when communicating information on NCD risk factors. • Using filtering questions to identify and address the needs of patients at risk of developing NCDs. • Conduct all consultations in appropriate settings, minimising interruptions, and maintaining verbal, auditory and personal privacy. • Use didactics, practicums and workshops in the patient education process to boost comprehension and knowledge retention.
Self-management education	• Educate patients on the importance of self-management of NCD risk factors. • Teach and demonstrate to patients the various evidence-based self-care practices in the management of NCD risk factors, e.g., self-monitoring of vital signs.
Pharmaceutical care	
Medicines	
	• Apply knowledge of commonly used and approved novel medicines for alcoholic liver disease in the management of patients with alcoholic liver disease.

Medicines for alcoholic liver disease	• Work with patients and within multidisciplinary care teams to simplify and rationalise treatment regimens for alcoholic liver disease and find lower cost medicines where a need is identified. • Conduct medication management assessments to determine whether patients are experiencing any adverse effects or interactions that are related to medicines for alcoholic liver disease. • Where applicable, effectively monitor patient response to therapeutic levels of medicines for alcoholic liver disease in accordance with set treatment goals. • Identify, discuss and implement patient-centred strategies to address patient concerns about their medicines for alcoholic liver disease. • Effectively communicate to patients the risks and benefits of medicines for alcoholic liver disease. • Counsel and educate patients on medicine-specific considerations in the treatment of alcoholic liver disease.
Medicines for alcohol withdrawal	• Apply knowledge of commonly used and approved novel medicines for alcohol withdrawal in the management of patients with alcohol withdrawal syndrome. • Work with patients and within multidisciplinary care teams to simplify and rationalise treatment regimens for alcohol withdrawal and find lower cost medicines where a need is identified. • Conduct medication management assessments to determine whether patients are experiencing any adverse effects or interactions that are related to medicines for alcohol withdrawal. • Where applicable, effectively monitor patient response to therapeutic levels of medicines for alcohol withdrawal in accordance with set treatment goals. • Identify, discuss and implement patient-centred strategies to address patient concerns about their medicines for alcohol withdrawal syndrome. • Effectively communicate to patients the risks and benefits of medicines for alcohol withdrawal. • Counsel and educate patients on medicine-specific considerations in the treatment of alcohol withdrawal.
Medicines for overweight and obesity	• Apply knowledge of commonly used and approved novel medicines for overweight and obesity in the management of patients with obesity or those who are overweight. • Work with patients and within multidisciplinary care teams to simplify and rationalise treatment regimens for overweight or obesity and find lower cost medicines where a need is identified. • Conduct medication management assessments to determine whether patients are experiencing any adverse effects or interactions that are related to medicines for overweight and obesity. • Where applicable, effectively monitor patient response to therapeutic levels of medicines for overweight and obesity in accordance with set treatment goals. • Identify, discuss and implement patient-centred strategies to address patient concerns about their medicines for overweight and obesity. • Effectively communicate to patients the risks and benefits of medicines for overweight and obesity. • Counsel and educate patients on medicine-specific considerations in the treatment of overweight and obesity.
	• Apply knowledge of commonly used and approved novel medicines for dyslipidaemia in the management of patients with dyslipidaemia.

Medicines for dyslipidaemia	• Work with patients and within multidisciplinary care teams to simplify and rationalise treatment regimens for dyslipidaemia and find lower cost medicines where a need is identified. • Conduct medication management assessments to determine whether patients are experiencing any adverse effects or interactions that are related to medicines for dyslipidaemia. • Where applicable, effectively monitor patient response to therapeutic levels of medicines for dyslipidaemia in accordance with set treatment goals. • Identify, discuss, and implement patient-centred strategies to address patient concerns about their medicines for dyslipidaemia. • Effectively communicate to patients the risks and benefits of medicines for dyslipidaemia. • Counsel and educate patients on medicine-specific considerations in the treatment of dyslipidaemia.
Medicines for chronic malnutrition	• Apply knowledge of commonly used and approved novel medicines for chronic malnutrition in the management of patients with chronic malnutrition. • Work with patients and within multidisciplinary care teams to simplify and rationalise treatment regimens for chronic malnutrition and find lower cost medicines where a need is identified. • Conduct medication management assessments to determine whether patients are experiencing any adverse effects or interactions that are related to medicines for chronic malnutrition. • Where applicable, effectively monitor patient response to therapeutic levels of medicines for chronic malnutrition in accordance with set treatment goals. • Identify, discuss and implement patient-centred strategies to address patient concerns about their medicines for chronic malnutrition. • Effectively communicate to patients the risks and benefits of medicines for chronic malnutrition. • Counsel and educate patients on medicine-specific considerations in the treatment of chronic malnutrition.
Medicines information	• Identify credible sources, evaluate, assess, and provide appropriate medicines information according to the needs of patients at risk of developing NCDs. • Support patients' use of health information technologies, digital communications and health solutions. • Provide accurate evidence-based information on non-pharmacological interventions for managing NCD risk factors.
Medicines use and supply	• Educate patients on proper storage conditions for medicines used to treat complications of NCD risk factors to maintain efficacy and shelf-life. • Ensure medicines used to treat complications of NCD risk factors are stored appropriately at the pharmacy by checking and maintaining the most important stability parameters such as humidity, temperature and expiry date. • Effectively communicate to patients under one's care all information on the appropriate route, dosage form, time of administration and any documentation for medicines prescribed. • Assess medicine prescriptions for authenticity, and therapeutic and pharmaceutical appropriateness. • Consult with the patient, carer or prescriber to address any issues identified in the assessed prescription. • Monitor medicines supply chains to ensure quality of medicines supplied, rational use and safe disposal.

	• Comply with national and professional guidelines when administering injectable medicines or supervising medicine dosing.
Pharmaceutical care plan	
Patient risk assessment	• Use evidence-based risk assessment tools to identify and comprehensively assess individuals at risk of developing NCDs.
Developing and implementing a care plan	• Co-create with patients/caregivers patient-centred care plans for NCD risk factor patients. • Follow-up with patients and their carers to ensure adherence and achievement of the set treatment targets in the care plan.
Monitoring care plan	• Schedule time for care planning based on routine patient visits or overt patient needs. • Effectively communicate and document specific responsibilities in the treatment care plan process. • Share treatment plan documentation with patients in a timely manner. • Implement, conduct and maintain a system for pharmacovigilance reporting.
Prevention and management of complications	• Identify patients who are at high risk of developing complications from NCD risk factors. • Effectively conduct regular screening for patients who are at risk of developing complications from NCD risk factors. • Initiate evidence-based non-pharmacological interventions to prevent and manage complications from NCD risk factors, e.g., diet modifications, behavioural counselling, surgery. • Appropriately administer pharmacological therapy for prevention and management of NCD complications. • Where necessary, appropriately refer patients who present with NCD associated complications to general practitioners or specialists. • Advise on psychotherapy to address psychosocial issues and concerns among patients who develop complications from NCD risk factors. • Advise on, initiate and monitor evidence-based self-care interventions among patients at high risk of developing complications from NCD risk factors.
Special population groups	
Children and adolescents	• Effectively communicate to patients and carers considerations for pharmacological and non-pharmacological management of NCD risk factors in children and adolescents. • Effectively conduct screening tests for NCD risk factors in children and adolescents within the primary care setting. • Communicate to patients and caregivers the link between NCD risk factors and their psychosocial impact on children and adolescents. • Promote evidence-based non-pharmacological interventions that prevent the development of NCD complications among children and adolescents.
Older adults	• Educate patients and carers on the special considerations for pharmacological and non-pharmacological management of NCD risk factors in older adults. • Communicate to patients and caregivers the causal relationship between NCD risk factors and their psychosocial impact on older adults. • Advocate and promote evidence-based behavioural and psychological interventions to help older adults at risk of developing NCDs.

Pregnancy and lactation	• Clearly communicate the causal relationship between exposure to NCD risk factors and the overall well-being of the unborn baby. • Effectively conduct screening tests for NCD risk factors in pregnant women within the primary care setting. • Educate pregnant women on pregnancy-specific conditions that emanate from NCD risk factors, such as gestational diabetes, pre-eclampsia, obstetric fistula and postpartum depression. • Appropriately manage pregnancy-specific conditions within one's scope of practice and refer to other specialists where necessary. • Advocate and promote evidence-based behavioural and psychological interventions to help pregnant and lactating women exposed to NCDs risk factors. • Assess medication for NCD complications for appropriateness and safety in pregnant and lactating women.
Professional	
Multidisciplinary care and interprofessional collaboration	• Establish contact, respect and trust with colleagues and other healthcare professionals while respecting individual, cultural and ethnic differences. • Communicate effectively with health and social care staff, support staff, patients, caregivers and relatives using simple language, contextualised to specific needs, and check for understanding. • Work collaboratively with other healthcare professionals to identify gaps in the care plan and improve outcomes for the patient. • Serve as a medicines expert for the multidisciplinary team and organisation and as a resource for topics related to NCD risk factors, NCD care and education. • Recognise and advocate the value of the pharmacy team within the multidisciplinary team. • Mitigate risks of medicines shortages and stock-outs through liaison and appropriate communication with healthcare staff, healthcare stakeholders and patients. • Promote and support opportunities for learning that enhance the practice of colleagues, pharmacy students and other healthcare professionals in the management of other NCD risk factors. • Identify and respond to gaps in knowledge, skills, and professional behaviours of others in relation to the management of other NCD risk factors.
Ethical practice	• Maintain privacy and confidentiality with the patient and other healthcare professionals
Policies, regulations and guidelines	
Policies, regulations and guidelines	• Keep abreast of relevant policies, regulations and guidelines that support provision of quality healthcare services in managing other NCD risk factors and their complications. • Participate in the development of regulations and guidelines for the management of other NCD risk factors and support dissemination of these guidelines to other healthcare providers.
Healthcare systems	• Effectively communicate to stakeholders and policymakers the impact of NCD risk factors and their associated complications. • Participate in the establishment or implementation of initiatives designed to improve population outcomes for NCD risk factors. • Identify and address systems-based barriers that could hinder patients at risk of developing NCDs from accessing optimal care, i.e., individual, cultural and economic factors.

	• Identify organisational and systemic solutions and provide support for overcoming barriers to medication adherence. • Proactively increase population awareness of the pharmacist's role in the management of NCD risk factors.

4 Consideration for CPD providers of courses and programmes on tobacco cessation for pharmacists

FIP recognises that training and professional programmes for pharmacists and pharmacy teams play a key role in the development and maintenance of competence in the management of tobacco addiction and other NCD risk factors, as well as in service provision. It is recommended that training and professional programmes, in the form of continuing professional development (CPD), include educational materials and training on existing and future pharmacist roles in tobacco cessation and managing other NCDs risk factors.

Underpinned by the knowledge and skills reference guide (Chapter 3), training programmes should focus on the roles and services in tobacco cessation and managing other NCDs risk factors and, at the completion of training, a practitioner should be able to demonstrate knowledge and apply skills in the following areas:

- Advocacy and health promotion;
- Screening, prevention and management of complications of nicotine addiction and other NCD risk factors;
- Pharmaceutical care;
- Patient education and person-centred care;
- Tobacco cessation and management of other NCD risk factors;
- Multidisciplinary care and interprofessional collaboration;
- Stewardship of medicines supply, availability and affordability; and
- Policy, regulations and guidelines.

The following considerations will support the development and implementation of robust training, guidelines and transformative CPD programmes that are focused on improving the competence and capacity of practitioners in the management of patients with tobacco addiction and other NCD risk factors.

4.1 Embarking on a needs-based approach to addressing education, CPD and training gaps

CPD in tobacco cessation and managing other NCDs risk factors should address local and national needs and reflect individual professional development needs and learning endeavours. The following should be noted:

- The diversity of health systems and contexts may hinder access to recommended therapies due to costs and supply chain problems. Pharmacists should play a critical role in adequately managing tobacco cessation and other risk factors in NCDs in the context of local and national needs.
- CPD is lifelong and must be relevant to one’s area of practice. As such, CPD in tobacco cessation and managing other NCDs risk factors should focus on addressing individual professional needs and provide a holistic approach to gaining knowledge, learning skills and embracing attitudes and values that allow pharmacists to execute their roles.

4.2 Fostering national and international collaborations on training projects in tobacco cessation

Collaborating on training projects for tobacco cessation and the management of other NCD risk factors for pharmacists offers the following benefits:

- Bridging the skills gap in managing tobacco addiction and NCD risk factors between countries with varying economic status;
- Sharing of resources; and
- Increasing the involvement of relevant international organisations such as the WHO, the United Nations, and FIP in lobbying key decision-makers to incorporate trained pharmacists within multidisciplinary healthcare teams to manage patients with tobacco addiction and other NCD risk factors.

4.3 Quality assurance and accreditation of training programmes

CPD programmes in tobacco cessation and managing other NCD risk factors require accreditation or assessment to demonstrate that the learning activities have achieved the required standards and benchmarks set by regulatory or professional bodies. Accreditation ensures that the learning is of high quality and meets the expectations of pharmacists, employers and the community. Certification of training courses and programmes facilitates the standardisation of crucial knowledge and skills required to upskill. It also paves the way to develop multidisciplinary consensus guidelines with other health professionals in tobacco cessation and managing other NCDs risk factors, and professional credentialing of the individuals involved.

5 FIP Seal for programmes and CPD providers

The FIP Provision and Partnerships Programme provides a global platform to help FIP members address professional support and development of the pharmaceutical workforce according to local and national needs and priorities. By offering a global platform for collaboration and partnerships among members and partners, FIP provides an opportunity to bridge training and professional development gaps. FIP can identify with members' transformative opportunities to accelerate the advancement of pharmacy across all sectors and roles.

In 2021, following expert consultation and an iterative process, FIP developed criteria to assure the quality of professional development and training programmes, and their alignment with FIP's mission, goals and the Development Goals.[77] The FIP Seal recognises the overall quality and alignment of a programme. Application forms and details of the process to be followed are available to interested parties to undertake self-assessment for the FIP Seal upon request (email Dr Dalia Bajis at dalia@fip.org) and in the FIP handbook for providers of programmes.[77]

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