



Quality use of medicines

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1 Palmerston Crescent
South Melbourne, Victoria, 3205
T 03 8699 0414
F 03 8699 0400
www.racgp.org.au
ABN 34 000 223 807

Definition

The quality use of medicines refers to the process of:

- selecting patient management options wisely
- choosing suitable medicines if a medicine is considered necessary
- using medicines safely and effectively.¹

The term 'medicine' includes prescription, nonprescription and complementary medicines.²

This definition of quality use of medicine not only applies to medicines in the general practice setting, but also to all medicines used by individual patients that can affect their health. This whole-health system view is necessary as general practice patients obtain their medications from a range of sources such as those initiated by themselves, other general practitioners, other medical specialists, pharmacists and complementary therapists.

Quality use of medicines is one of the central objectives of Australia's National Medicines Policy and is a key criterion in the RACGP *Standards for general practices*.³

Curriculum in practice

The following case illustrates how the quality use of medicines curriculum applies to general practice:

- Roger, 39 years of age, is a builder who attends the practice irregularly, usually if he needs antibiotics for infected wounds such as his presentation today. You notice that he hasn't had a blood pressure check for several years and find it is 150/95 mmHg. He is otherwise well, does not smoke, drinks about 3–4 beers after work with his work mates, and is up-to-date with his vaccinations. Roger's family history is unremarkable; both his parents are alive and well, although his father is on medication for hypertension and high cholesterol. You recheck Roger's blood pressure on subsequent occasions, which remains elevated. All other investigations show no abnormalities. You discuss commencing antihypertensive medications with Roger, but he says that he is a well man and can't see why he should start lifelong medication when he has no symptoms. He starts work early in the morning and often works in high places where postural dizziness would be dangerous. Does he really need medication? If so, what medication would be best? How would you monitor his response?

Rationale and general practice context

Every year there are more than 115 million general practice encounters in Australia⁴ and over 200 million prescriptions dispensed by pharmacies each year.⁵ This represents the equivalent of more than eight prescriptions per Australian per year.⁵ Medications are recommended or prescribed in 43% of Australian general practice consultations.⁴ There are also many over-the-counter medications resulting in nearly 70% of all Australians (and nearly 90% of older Australians), taking at least one medication per fortnight. Over 1.5 million Australians suffer an adverse event from medicines each year. This results in at least 400 000 visits to general practitioners and 140 000 hospital admissions.⁶

General practitioners need the required skills for the quality use of medicines in the practice setting, which include^{1,7}:

- selecting management options wisely by:
 - considering the place of medicines in treating illness and maintaining health
 - recognising that there may be better ways than medicine to manage many disorders
- choosing suitable medicines, if a medicine is necessary, so that the best available option is selected by taking into account:
 - the individual and their understanding and expectations of medicines
 - their clinical condition
 - their risks and benefits
 - dosage and length of treatment
 - any co-existing conditions – such as other medical conditions – and individual factors such as age, pregnancy, impaired liver, kidney or heart function
 - other therapies especially polypharmacy
 - monitoring considerations
 - costs for the individual, the community and the health system.

Rational prescribing skills are necessary for choosing the most suitable available medicine and include⁷:

- prescribing within the limitations of the treating doctor's knowledge, skills and experience
- being clear about the reasons for prescribing and communicating these to the patient including the potential benefits and risks
- using medicines only when appropriate, with nonmedicinal alternatives considered as needed. This includes medicines which are prescribed, recommended and/or self selected
- using efficacious medications that aim to achieve the goals of therapy by delivering beneficial changes in actual health outcomes in accordance with accepted prescribing national guidelines where appropriate
- choosing the most appropriate medicine, taking into account factors such as the clinical condition being treated, the potential benefits and risks of treatment, dosage, length of treatment and cost
- taking into account the patient's ideas, concerns and expectations
- safety considerations (see 'using medicines safely and effectively').

General practitioners must have the knowledge and skills to use medicines to their best effect and must also have access to current and accurate information, electronic supports and education. This includes resources such as the *Australian Medicines Handbook*, *Therapeutic Guidelines*, *Australian Prescriber*, adverse drug reports and bulletins and the National Prescribing Service.

General practitioners also have an ethical and professional obligation to manage the potential risk of other influences on the prescribing relationship such as from industry sources, advertising and the media.⁸

Using medicines safely and effectively

Using medicines safely and effectively in general practice is achieved by:

- writing or printing unambiguous legal prescriptions using the correct documentation
- monitoring outcomes including benefits and adverse events
- minimising misuse, over-use and under-use
- improving a patient's ability to solve problems related to medication, such as negative effects or managing multiple medications.

Medication error in the community is a complex issue with no single factor being responsible. Minimising the risk of medication errors involves doctors, patients, the practice and broader system based approaches to promote patient safety. Quality use of medication education needs to address these broad aspects of medication safety.

Medication errors are estimated to affect around 10% of general practice patients and up to 25% of high risk patients who report medicine adverse events.⁹ The groups at highest risk are the elderly, those taking multiple medications and those taking high risk medications. Cardiovascular drugs, antithrombotic agents, analgesics, antibiotics, oral antidiabetic agents, antidepressants, anti-epileptic drugs and chemotherapeutic agents are the medications associated with the highest risk of adverse events in the adult population.

In the paediatric population, respiratory drugs, antibiotics, antihistamines and analgesics are most commonly associated with adverse events.

Antimicrobial resistance

The rise of community acquired antibiotic resistance requires judicious prescribing on the part of GPs to slow down the emergence of antibiotic resistance.¹⁰ Key principles that GPs need to include:

- being aware of best practice antibiotic prescribing for each disease through the use of current guidelines
- evaluating antibiotic use within the practice (eg. through clinical audits)
- applying consistent prescribing practices
- educating patients about the best and appropriate use of antibiotics.¹⁰

Issues of antimicrobial resistance go beyond antibiotics and can also be a problem for some viral,^{11,12} fungal and parasitic diseases.¹³

Managing adverse medication events

General practitioners need to know how to manage medication adverse events including within the practice setting, and reporting adverse medicine reactions to the appropriate authorities.

The role of communication in quality use of medicines

As in all areas of general practice, effective and open communication with patients, members of the general practice team and the broader health sector are critical for achieving quality use of medicines.

General practitioners need to clearly communicate why a medicine is, or is not, required and provide clear advice when recommending medicines to help minimise risks and maximise medicine safety. This includes addressing the patient's understanding of their management and identifying any barriers to effective communication such as cultural and linguistic diversity, disability and health literacy problems. This enables the doctor and the patient to arrive at a satisfactory mutually negotiated management outcome.

Open communication is also required to identify other medications that the patient may be taking that were not initiated by the GP, including over-the-counter medications and complementary therapies.

For example, almost two-thirds of the community have used some form of complementary medicine and many do not disclose this to their doctor. Research shows that more than half of people taking complementary medicines do not tell their doctor and about 50% used conventional medicines on the same day.¹⁴ This is a potentially unsafe use of medicine.^{15,16} For more information see the curriculum statement *Integrative medicine*.

As highlighted in the *Quality and Safety* curriculum statement, communication errors are reported to be the leading causes of patient harm and this applies to quality use of medicines. Poor communication is the most commonly reported contributing factor in medication errors between patients and health professionals, GPs and pharmacists and health professionals at the transfer-of-care.

Poor communication after an adverse event can determine the decision to take legal action.¹⁷ Medication errors involving GPs currently account for about 8% of medical negligence claims.¹⁸

Errors have been shown to occur during all stages of the medication process including prescribing, supply, administration, monitoring and documentation. However, the highest risk of error is during transfer of care, with Australian and overseas studies finding that 52% to 88% of transfer documents contain an error.⁹ Rates of prescribing errors were found to be as high as 32 errors per 100 prescriptions in overseas studies and up to 115 errors per 100 high risk patients in Australian studies.⁹

A prescription is essentially a type of handover document that needs to be unambiguously and legally written or printed using the correct documentation. Good patient handover skills are important to promote quality use of medicines for GPs and are covered in the *Quality and safety* curriculum statement.

General practices need to be able to use communication tools such as briefings, clear handover procedures, good record keeping, electronic prescribing tools, patient information materials and checklists to improve quality use of medicines and reduce the rate of patient harm.¹⁹

Systems to minimise medication errors therefore have the potential to significantly reduce patient harm in the general practice setting.

Health promotion and quality use of medicines

General practitioners can promote the quality use of medicines in the community through good treatment choices with patients. For example, this could be taking the time to explain that antibiotics are unnecessary in an upper respiratory tract infection, or the use of lifestyle measures instead of medication.

Multidisciplinary care and quality use of medicines.

Communication also needs to be clear with members of the practice team and the broader health sector to ensure continuity of patient care, especially regarding ensuring that any changes to medicines are carefully documented and communicated.

Practice based systems and quality improvement

Teamwork and practice systems are critical aspect of quality use of medicines. Accurate record keeping to ensure that all health providers are aware of a patient's current medicine use and ensuring that patient safety information is detected, recorded and shared such as allergies and drug reactions.

Practice based systems are also becoming increasingly important as an aspect of quality improvement, using tools such as clinical audits to help improve patient outcomes. These tools have been demonstrated to be effective in improving care including the quality use of medicines. For more information see curriculum statement *Quality and safety*.

Cost effective prescribing

While the first and overriding consideration of prescribing medications is evidence based, a responsible prescriber will also consider cost effectiveness. While there are a range of schemes to subsidise the cost of medication for an individual, noncompliance due to affordability remains an additional source of concern for quality use of medications.

Although subsidies exist to improve medication affordability, 13.4% of Australians report not having a prescription filled due to cost in the preceding 12 months.²⁰ This indicates the impact that cost has on treatment adherence and patient safety.

In the context of an aging population, cost effective prescribing is also a consideration in minimising the subsidised medication costs to the Australian community.

Related curriculum areas

Quality use of medicine impacts on all curriculum areas, but in particular the following:

- *E-health*
- *Integrative medicine*
- *Multidisciplinary care*
- *Practice management*
- *Quality and safety.*

Training outcomes of the five domains of general practice

1. Communication skills and the patient-doctor relationship

- QUMT1.1 Communicate clearly with patients and carers the reasons for prescribing or not prescribing, including the potential benefits and risks.
- QUMT1.2 Take into account the patient's ideas, concerns and expectations when negotiating medicine use, including patient cultural and personal preferences for the nature of treatment with both conventional and complementary therapies.
- QUMT1.3 Provide clear advice about medicine administration when recommending medicines.
- QUMT1.4 Create a nonjudgmental and open environment for patient-doctor communication so that patients can discuss any concerns regarding their medicine use. Also promote the identification of other medicines that the patient may be taking that were not initiated by the GP, including over-the-counter medicines and complementary therapies.
- QUMT1.5 Assess the influence of health literacy of patient and carer on their understanding of their use of medicines and incorporate this into patient-doctor communications.
- QUMT1.6 Use communication methods, tools and patient resources to promote quality use of medicines including treatment adherence.

2. Applied professional knowledge and skills

- QUMT2.1 Use medicines only when appropriate and consider nonmedicinal alternatives as needed.
- QUMT2.2 Understand the principles of quality use of medicines to the general practice setting.
- QUMT2.3 Prescribe within the limitations of the treating doctor's knowledge, skills and experience.
- QUMT2.4 Select the most appropriate medicine and take into account factors such as the clinical condition being treated, the potential benefits and risks of treatment, dosage and length of treatment and cost.
- QUMT2.5 Know the interactions of drug-disease, drug-patient and drug-drug relationships for likely clinical presentations, ranging from acute self limiting conditions to chronic complex diseases. Understand the natural course of the disease.
- QUMT2.6 When choosing medicines, select the best available option and include the following factors in this choice:
- the individual person and their understanding and expectations of medicines
 - the clinical condition
 - risks and benefits of the medicine
 - dosage and length of treatment
 - any co-existing conditions such as other medical conditions and multiple pathologies. Also consider individual factors such as age, pregnancy, impaired liver, kidney or heart function
 - other therapies especially polypharmacy
 - monitoring considerations
 - costs to the individual, the community and the health system
 - safety considerations.

- QUMT2.7 Write or print unambiguous legal prescriptions using the correct documentation.
- QUMT2.8 Accurately list patient medications and instructions.
- QUMT2.9 Apply current, timely prescribing guidelines and resources to the quality use of medicines in the general practice setting.
- QUMT2.10 Assess the significance of potential and actual multidimensional drug interactions for minimising patient harm including the management of polypharmacy.
- QUMT2.11 Manage adverse medicine events within the practice, and in the event of a medication reaction, report events to the appropriate monitoring organisations as appropriate.
- QUMT2.12 Monitor treatment outcomes including benefits and adverse events.
- QUMT2.13 Be able to use electronic prescribing software appropriately.

3. Population health and the context of general practice

- QUMT3.1 Promote the quality use of medicines in patients and the community through good treatment choices with patients.
- QUMT3.2 Understand the National Medicines Policy and the place of quality use of medicines.
- QUMT3.3 Understand the common patterns of medicine use in the community including prescribed, over-the-counter and self selected medicines.
- QUMT3.4 Apply the quality use of medicine to antimicrobial use in the general practice setting including consistent prescribing practices; using current microbial prescribing guidelines; evaluating antibiotic use within the practice; and educating patients about the best and appropriate use of antibiotics.
- QUMT3.5 Understand the influence of culture and language on the quality use of medicines.
- QUMT3.6 Understand the impact of cost on quality use of medicines on the individual, families and the broader health system.

4. Professional and ethical role

- QUMT4.1 Recognise personal limitations of the knowledge, skills and experience when prescribing and know where to seek further assistance.
- QUMT4.2 Work effectively within a multidisciplinary setting to help reduce medication errors, especially within the context of clinical handover.
- QUMT4.3 Understand professional obligations to report adverse medicine events to appropriate organisations.
- QUMT4.4 Understand professional requirements for quality use of medicine as documented in the RACGP *Standards for general practices*.
- QUMT4.5 Understand the potential for nontherapeutic influences on prescribing choices such as industry sources, advertising and the media.
- QUMT4.6 Disclose any potential conflicts of interest (eg. if research is being conducted in the general practice setting).

5. Organisational and legal dimensions

- QUMT5.1 Communicate clearly with members of the practice team, other multidisciplinary care teams and the broader health sector to ensure continuity of patient care, ensuring that any changes to medicines are appropriately documented and communicated.
- QUMT5.2 Ensure that all prescriptions are written or printed unambiguously and meet legal requirements and use the correct documentation.
- QUMT5.3 Keep accurate patient records to ensure that all health providers are aware of a patient's current medicine use and ensure that patient safety information is detected, recorded and shared (such as allergies and drug reactions).
- QUMT5.4 Be able to access current information on medicines.
- QUMT5.5 Understand the availability of various government subsidy schemes to assist patients, such as PBS co-payment schemes and supports for Aboriginal and Torres Strait Islander people.
- QUMT5.6 Understand the precise requirements, limitations and processes relating to prescribing, including those for the Pharmaceutical Benefits Scheme (such as Restricted or Authority medications) and the jurisdictional requirements for S4 and S8 medicines.
- QUMT5.7 Understand the appropriate storage of medicines within the practice including in doctors bags.
- QUMT5.8 Use teamwork and practice systems to improve the quality use of medicines by reviewing prescribing patterns in accordance with best available evidence such as clinical audits.
- QUMT5.9 Know how to document medicine adverse events, or near misses, and how to implement change based on these events in accordance with clinical governance principles detailed in the RACGP *Standards for general practices*.
- QUMT5.10 Understand the use of practice systems including briefings, clear handover procedures, good record keeping including electronic prescribing tools, patient information materials and checklists to improve quality use of medicines.

Learning objectives across the GP professional life

Medical student

1. Communication skills and the patient-doctor relationship

- QUMLM1.1 Outline communication issues with patients and carers that promote the quality use of medicines.
- QUMLM1.2 Describe how a patient's ideas, concerns and expectations, including cultural and personal preferences for the nature of treatment with both conventional and complementary therapies, may influence medicines choice.
- QUMLM1.3 Demonstrate skills for providing clear advice about medicine administration.
- QUMLM1.4 Describe the influence of a nonjudgmental and open environment for patient-doctor communication for patients to be able to discuss any concerns regarding their medicine use.
- QUMLM1.5 Investigate communication methods, tools and patient resources to promote quality use of medicines including treatment adherence in various health settings.

2. Applied professional knowledge and skills

- QUMLM2.1 Discuss conditions where nonmedicinal alternatives might be considered in place of medicines.
- QUMLM2.2 Describe the general principles of quality use of medicines.
- QUMLM2.3 Outline the effect of the limitations of a treating doctor's knowledge, skills and experience on prescribing.
- QUMLM2.4 Discuss the general factors that influence prescribing such as the clinical condition being treated, the potential benefits and risks of treatment, dosage, length of treatment and cost.
- QUMLM2.5 Outline the patterns of potential and actual interactions between medicines, the patient and their diseases.
- QUMLM2.6 Discuss how the following factors can affect medicine choices:
- the individual person and their understanding and expectations of medicines
 - the clinical condition
 - risks and benefits and the medicine
 - dosage and length of treatment
 - any co-existing conditions such as other medical conditions, multiple pathologies and individual factors like age, pregnancy, impaired liver, kidney or heart function
 - other therapies especially polypharmacy
 - monitoring considerations
 - costs for the individual, the community and the health system
 - safety considerations.
- QUMLM2.7 Outline the requirements for writing/printing unambiguous legal prescriptions using the correct documentation including the use of electronic prescribing software.
- QUMLM2.8 Outline the importance of accurately listing and documenting patient medications and instructions.

- QUMLM2.9 Outline the role of current, timely prescribing guidelines and resources in the quality use of medicines.
- QUMLM2.10 Discuss the general principles of potential and actual drug interactions including polypharmacy.
- QUMLM2.11 Outline the principles of monitoring treatment outcomes.
- QUMLM2.12 Outline the key features of adverse medicine events and their reporting requirements.

3. Population health and the context of general practice

- QUMLM3.1 Outline the promotion of quality use of medicines in patients.
- QUMLM3.2 Outline the National Medicines Policy and the public health aspects of quality use of medicines.
- QUMLM3.3 Outline the types and patterns of medicine use including prescribed, over-the-counter and self selected medicines.
- QUMLM3.4 Discuss the quality use of medicines to antimicrobial use in the hospital and community settings. Also outline the impact of consistent prescribing practices using current microbial prescribing guidelines, ongoing evaluation of antibiotic use and patient education about the best and appropriate use of antibiotics.
- QUMLM3.5 Discuss the influence of culture and language on the quality use of medicines in the hospital setting.

4. Professional and ethical role

- QUMLM4.1 Discuss how personal limitations of knowledge, skills and experience have the potential to affect prescribing and outline management when quality use of medicine issues are outside these limitations.
- QUMLM4.2 Discuss how multidisciplinary care may help reduce medication errors especially within the context of a clinical handovers.
- QUMLM4.3 Describe systems for reporting adverse medicine events.
- QUMLM4.4 Discuss how non therapeutic factors could affect prescribing choices such as industry sources, advertising and the media.
- QUMLM4.5 Outline the importance of disclosing any potential conflicts of interest (eg. between treatment and research).

5. Organisational and legal dimensions

- QUMLM5.1 Outline the importance of communication with co-workers, multidisciplinary care teams and the broader health sector to ensure continuity of patient care, ensuring that any changes to medicines are appropriately documented and managed.
- QUMLM5.2 Outline the legal requirements of prescriptions.
- QUMLM5.3 Discuss the importance of accurate patient records to ensure that all health providers are aware of a patient's current medicine use and ensuring that patient safety information is detected, recorded and shared (such as allergies and drug reactions).
- QUMLM5.4 Outline how to access current information on medicines.
- QUMLM5.5 Discuss the requirements, limitations and processes relating to prescribing including those for the Pharmaceutical Benefits Scheme (such as Restricted or Authority medications) and the jurisdictional requirements for S4 and S8 medicines in the general practice setting.
- QUMLM5.6 Outline how teamwork and system approaches can be used to improve the quality use of medicines.

Learning objectives across the GP professional life

Prevocational doctor

Assumed level of knowledge – medical student

1. Communication skills and the patient-doctor relationship

- QUMLP1.1 Demonstrate the ability to communicate the reasons for prescribing (including the potential benefits and risks in the hospital setting) to patients and carers.
- QUMLP1.2 Consider the patient's ideas, concerns and expectations when negotiating medicine use (including patient cultural and personal preferences for the nature of treatment with both conventional and complementary therapies in the hospital setting).
- QUMLP1.3 Demonstrate how to provide clear advice about medicine administration when recommending medicines in the hospital setting.
- QUMLP1.4 Outline how to create a nonjudgmental and open environment for patient-doctor communication for patients to discuss any concerns regarding their medicine use. Also promote the identification of other medicines that the patient may be taking not initiated by the treating doctor.
- QUMLP1.5 Describe communication methods, tools and patient resources to promote quality use of medicines (including treatment adherence in the hospital setting).

2. Applied professional knowledge and skills

- QUMLP2.1 Describe conditions where nonmedicinal alternatives could be considered in place of medicines.
- QUMLP2.2 Describe the principles of quality use of medicines in the hospital setting.
- QUMLP2.3 Describe how to prescribe within the limitations of the treating doctor's knowledge, skills and experience in the hospital setting.
- QUMLP2.4 Describe the potential benefits and risks of treatment. Also describe the medication dosages, length of treatment, and the cost effective choices of particular medications when prescribing.
- QUMLP2.5 Describe the potential drug-disease, drug-patient and drug-drug interactions for clinical presentations in the hospital setting.
- QUMLP2.6 Describe how the following factors can affect medicine choice in the hospital setting:
- the individual person and their understanding and expectations of medicines
 - the clinical condition
 - risks and benefits and the medicine
 - dosage and length of treatment
 - any co-existing conditions, eg. other medical conditions, multiple pathologies and individual factors such as age, pregnancy, impaired liver, kidney or heart function
 - other therapies especially polypharmacy
 - monitoring considerations
 - costs for the individual, the community and the health system
 - safety considerations.

- QUMLP2.7 Demonstrate how to write and print unambiguous legal prescriptions using the correct documentation in the general practice setting.
- QUMLP2.8 Demonstrate how to accurately list patient medications and instructions in the general practice setting.
- QUMLP2.9 Describe how to apply current, timely prescribing guidelines and resources to the quality use of medicines in the hospital setting.
- QUMLP2.10 Outline and discuss the potential and actual drug interactions, including the management of polypharmacy in the hospital setting.
- QUMLP2.11 Describe the principles of monitoring treatment outcomes including benefits and adverse events.
- QUMLP2.12 Describe the management of adverse medicine events within the hospital setting, including event reporting requirements.
- QUMLP2.13 Outline the use of electronic prescribing software.

3. Population health and the context of general practice

- QUMLP3.1 Describe how to promote the quality use of medicines in patients.
- QUMLP3.2 Outline the National Medicines Policy and the place of quality use of medicines in the hospital setting.
- QUMLP3.3 Outline the common patterns of medicine use including prescribed, over-the-counter and self selected medicines.
- QUMLP3.4 Demonstrate the application of the quality use of medicine to antimicrobial use in the hospital setting including consistent prescribing practices, using current microbial prescribing guidelines and educating patients about the best and appropriate use of antibiotics.
- QUMLP3.5 Describe the influence of culture and language on the quality use of medicines in the hospital setting.

4. Professional and ethical role

- QUMLP4.1 Outline how personal limitations of knowledge, skills and experience have the potential to affect prescribing and outline where to seek further assistance.
- QUMLP4.2 Describe how to work effectively within a multidisciplinary setting to help reduce medication errors especially within the context of a clinical handover to and from the hospital setting.
- QUMLP4.3 Outline professional obligations for reporting adverse medicine events within the hospital setting.
- QUMLP4.4 Identify potential nontherapeutic influences on prescribing choices such as industry sources, advertising and the media.
- QUMLP4.5 Outline the importance of disclosing any potential conflicts of interest (eg. if research is being conducted in the current workplace setting).

5. Organisational and legal dimensions

- QUMLP5.1 Demonstrate clear communication with members of the practice team, other multidisciplinary care teams and the broader health sector to ensure continuity of patient care ensuring that any changes to medicines are appropriately documented and managed.
- QUMLP5.2 Describe the legal requirements of prescriptions in the general practice setting.
- QUMLP5.3 Demonstrate the ability to keep accurate patient records to ensure that all health providers are aware of a patient's current medicine use and that patient safety information is detected, recorded and shared such as allergies and drug reactions.
- QUMLP5.4 Describe how to access current information on medicines.
- QUMLP5.5 Detail the requirements, limitations and processes relating to prescribing including those for the Pharmaceutical Benefits Scheme (such as Restricted or Authority medications) and the jurisdictional requirements for S4 and S8 medicines in the general practice setting.
- QUMLP5.6 Outline how teamwork and practice systems can be used to improve the quality use of medicines in the hospital setting.
- QUMLP5.7 Describe the use of hospital systems including briefings, clear handover procedures, good record keeping including electronic prescribing tools, patient information materials and checklists to improve quality use of medicines.

Learning objectives across the GP professional life

Vocational registrar

Assumed level of knowledge – prevocational doctor

1. Communication skills and the patient-doctor relationship

- QUMLV1.1 Demonstrate the ability to communicate clearly with patients and carers the reasons for prescribing, including the potential benefits and risks in the general practice setting.
- QUMLV1.2 Demonstrate how to take into account the patient's ideas, concerns and expectations when negotiating medicine use (including patient cultural and personal preferences for the nature of treatment with both conventional and complementary therapies).
- QUMLV1.3 Demonstrate how to provide clear advice about medicine administration when recommending medicines.
- QUMLV1.4 Describe how to create a nonjudgmental and open environment for patient-doctor communication in order for patients to be able to discuss any concerns regarding their medicine use. Also promote the identification of other medicines the patient may be taking that were not initiated by the GP (including over-the-counter medicines and complementary therapies).
- QUMLV1.5 Outline the assessment of the patient and carer understanding of their use of medicines and incorporate this into patient-doctor communications.
- QUMLV1.6 Describe communication methods, tools and patient resources to promote quality use of medicines including treatment adherence.

2. Applied professional knowledge and skills

- QUMLV2.1 Outline how to use medicines appropriately and consider nonmedicinal alternatives, including medicines that are prescribed, recommended and/or self selected.
- QUMLV2.2 List the principles of quality use of medicines in the general practice setting.
- QUMLV2.3 Describe how to prescribe within the limitations of the treating doctor's knowledge, skills and experience within the general practice setting.
- QUMLV2.4 Describe how the clinical condition, the potential benefits and risks of treatment, dosage, length of treatment and cost affect medicine choice when prescribing.
- QUMLV2.5 Describe the potential drug-disease, drug-patient and drug-drug interactions for clinical presentations ranging from acute self limiting conditions to chronic complex diseases and incorporate an understanding of the natural course of the disease.
- QUMLV2.6 Describe how the following factors can affect medicine choice in the general practice setting:
- the individual person and their understanding and expectations of medicines
 - the clinical condition
 - risks and benefits and the medicine
 - dosage and length of treatment
 - any co-existing conditions, eg. other medical conditions, multiple pathologies and individual factors such as age, pregnancy, impaired liver, kidney or heart function.
 - other therapies especially polypharmacy
 - monitoring considerations

- costs for the individual, the community and the health system
 - safety considerations.
- QUMLV2.7 Demonstrate how to write and print unambiguous legal prescriptions using correct documentation in the general practice setting.
- QUMLV2.8 Demonstrate how to accurately list patient medications and instructions in the general practice setting.
- QUMLV2.9 Describe how to apply current, timely prescribing guidelines and resources to the quality use of medicines in the general practice setting.
- QUMLV2.10 Outline and discuss the significance of potential and actual multidimensional drug interactions for minimising patient harm, including the management of polypharmacy in the general practice setting.
- QUMLV2.11 Describe the management of adverse medicine events within the practice, and in the event of adverse medication reactions, reporting events to the appropriate monitoring bodies.
- QUMLV2.12 Describe the principles of monitoring treatment outcomes including benefits and adverse events.
- QUMLV2.13 Demonstrate the use of electronic prescribing software appropriately.

3. Population health and the context of general practice

- QUMLV3.1 Describe how to promote the quality use of medicines in patients and the community through good treatment choices with patients.
- QUMLV3.2 Outline the National Medicines Policy and the place of quality use of medicines in general practice.
- QUMLV3.3 Discuss the common patterns of medicine use in the community including prescribed, over-the-counter and self selected medicines.
- QUMLV3.4 Demonstrate the application of the quality use of medicine to antimicrobial use in the general practice setting. Include consistent prescribing practices using current microbial prescribing guidelines, evaluating antibiotic use within the practice and educating patients about the best and appropriate use of antibiotics.
- QUMLV3.5 Outline the influence of culture and language on the quality use of medicines in the general practice setting.
- QUMLV3.6 Describe the impact of cost on quality use of medicines on the individual, families and the broader health system.

4. Professional and ethical role

- QUMLV4.1 Reflect on personal limitations of the knowledge, skills and experience when prescribing and outline where to seek further assistance.
- QUMLV4.2 Describe how to work effectively within a multidisciplinary setting to help reduce medication errors, especially within the context of a clinical handover to and from the general practice.
- QUMLV4.3 Outline professional obligations for reporting adverse medicine events to appropriate organisations.
- QUMLV4.4 Outline professional requirements for quality use of medicine as documented in the RACGP *Standards for general practices*.
- QUMLV4.5 Discuss the potential for nontherapeutic influences on prescribing choices such as industry sources, advertising and the media.
- QUMLV4.6 Describe how to disclose any potential conflicts of interest (eg. if research is being conducted in the general practice setting).

5. Organisational and legal dimensions

- QUMLV5.1 Demonstrate clear communication with members of the practice team, other multidisciplinary care teams and the broader health sector to ensure continuity of patient care ensuring that any changes to medicines are appropriately documented and managed.
- QUMLV5.2 Describe the legal requirements of prescriptions.
- QUMLV5.3 Demonstrate the ability to keep accurate patient records to ensure that all health providers are aware of a patient's current medicine use and ensuring that patient safety information is detected, recorded and shared such as allergies and drug reactions.
- QUMLV5.4 Describe how to access current information on medicines.
- QUMLV5.5 Outline various government subsidy schemes to assist patients such as PBS co-payment schemes and supports for Aboriginal and Torres Strait Islander people.
- QUMLV5.6 Detail the requirements, limitations and processes relating to prescribing including those for the Pharmaceutical Benefits Scheme (such as Restricted or Authority medications) and the jurisdictional requirements for S4 and S8 medicines.
- QUMLV5.7 Outline the appropriate storage of medicines within the practice including in the doctor's bags.
- QUMLV5.8 Outline how teamwork and practice systems could be used to improve the quality use of medicines, including clinical audits and the quality use of medicines such as antibiotic use.
- QUMLV5.9 Outline how to document medicine adverse events or near misses and how to implement change based on these events in accordance with clinical governance principles detailed in the RACGP *Standards for general practices*.
- QUMLV5.10 Describe the use of practice systems including briefings, clear handover procedures, good record keeping including electronic prescribing tools, patient information materials and checklists to improve quality use of medicines.

Learning objectives across the GP professional life

Continuing professional development

Assumed level of knowledge – vocational registrar

1. Communication skills and the patient-doctor relationship

- QUMLC1.1 Discuss and explore the role of communication in medicine adherence.
- QUMLC1.2 Demonstrate the creation of a nonjudgmental and open environment for patient-doctor communication so patients can discuss any concerns regarding their medicine use. Also promote the identification of other medicines a patient may be taking that were not initiated by a GP, including over-the-counter medicines and complementary therapies.
- QUMLC1.3 Demonstrate continual assessment and communication of the patient and carer understanding of their use of medicines.

2. Applied professional knowledge and skills

- QUMLC2.1 Be able to use quality improvement processes for promoting the quality use of medicines including using clinical audits.
- QUMLC2.2 Maintain knowledge of current, timely prescribing guidelines and resources for the quality use of medicines in the general practice setting.
- QUMLC2.3 Demonstrate approaches to minimise harm from potential and actual drug interactions, including the management of polypharmacy in the general practice setting.
- QUMLC2.4 Demonstrate the management of adverse medicine events within the practice, and in the event of adverse medication reaction, reporting events to the appropriate monitoring bodies.
- QUMLC2.5 Demonstrate the monitoring of treatment outcomes.

3. Population health and the context of general practice

- QUMLC3.1 Demonstrate the promotion of the quality use of medicines in patients and the community through good treatment choices with patients.
- QUMLC3.2 Discuss the common patterns of medicine use in the practice population.
- QUMLC3.3 Demonstrate that the quality use of medicines in relation to antimicrobial use in the general practice setting.
- QUMLC3.4 Describe the impact of cost on quality use of medicines on the individual, families and the broader health system.

4. Professional and ethical role

- QUMLC4.1 Initiate continual professional development after identifying personal limitations of prescribing knowledge, skills and experience when prescribing.
- QUMLC4.2 Demonstrate the ability to work effectively within a multidisciplinary setting to help reduce medication errors, especially within the context of clinical handovers.
- QUMLC4.3 Demonstrate meeting professional requirements for quality use of medicine as documented in the RACGP *Standards for general practices*.

5. Organisational and legal dimensions

- QUMLC5.1 Discuss practice processes for clear communication with members of the practice team, other multidisciplinary care teams and the broader health sector.
- QUMLC5.2 Outline the practice processes for accurate patient records to ensure that all health providers are aware of a patient's current medicine use. Also ensure that patient safety information is detected, recorded and shared (such as allergies and drug reactions).
- QUMLC5.3 Demonstrate the practice's access to current information on medicines.
- QUMLC5.4 Demonstrate appropriate documentation and compliance with prescribing in accordance with the Pharmaceutical Benefits Scheme (such as Restricted or Authority medications) and the jurisdictional requirements for S4 and S8 medicines.
- QUMLC5.5 Demonstrate the appropriate storage of medicines within the practice including in the doctor's bags.
- QUMLC5.6 Demonstrate quality improvement practice processes for the quality use of medicines including clinical audits, where appropriate.
- QUMLC5.7 Demonstrate the documentation of adverse medicine events or near misses and the implementation of change based on these events in accordance with clinical governance principles detailed in the RACGP *Standards for general practices*.
- QUMLC5.8 Demonstrate the use of practice systems including briefings, clear handover procedures, good record keeping including electronic prescribing tools, patient information materials and checklists to improve quality use of medicines.

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