

12 Management: Primary care administration and information management and technology

This competency area is about the appropriate use of primary care administration systems, effective record keeping and information technology for the benefit of patient care.

At first glance, this section might appear rather dull compared to the other performance areas as it doesn't seem to be directly related to patient care. We might even ask 'What has 'primary care administration' to do with me and my training as a doctor?' However, for modern GPs, the protocols and systems on which primary care is based are as essential to the care of patients as sound clinical skills. As doctors, we have a vital role in developing the systems that meet our needs.

For licensing, we are not expected to have an in-depth knowledge of practice management, but we should understand the basics of practice administration system and in particular, the role of the GP in applying, monitoring and improving this so that patient care is optimized and the practice, as a business, runs smoothly (and profitably!).

Computing skills on the other hand, are as essential in modern practice as being able to write, and the curriculum requires us to have a level of skill equivalent to the ECDL (European computer driving licence).

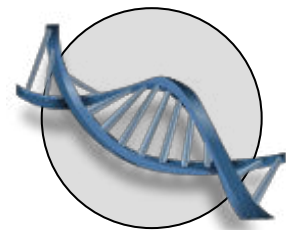
This performance area also includes the ability to keep good medical records, which is partly a matter of attitude and partly a skill.

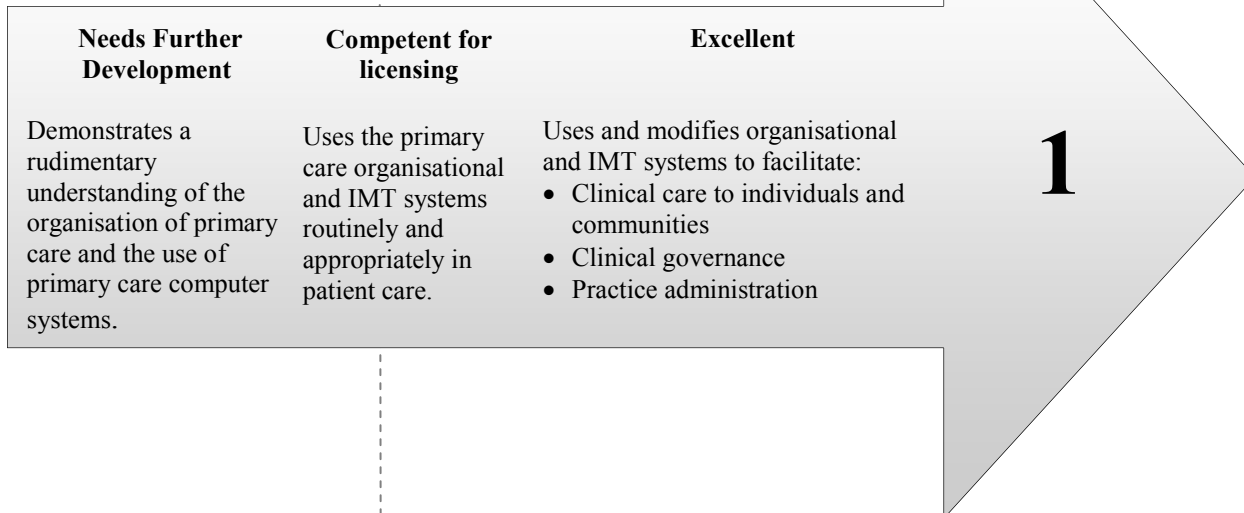
Which aspects of our DNA, our deeper features, are particularly important in Primary care administration and IMT? If we look back at the competencies for the Management section (page 118), we see that organisation & planning and to a lesser degree, empathy & sensitivity are important.

There are three major themes in the Primary care administration and IMT performance area, each represented by a progression, which we will now discuss one by one:



Joined up?
See p14





Tip: knowing the legislation

The legislation does not need to be known in depth, but there are some important Acts and protocols that you should be aware of:

The Data protection Act.

Access to medical reports Act
 The practice confidentiality policies. In particular, you should find out: who has access to the medical records? what level of data do they have access to? who is allowed to make changes? how these changes verified? (e.g. additions to repeat medication), how is record access audited? what are the sanctions for proven breach of confidentiality?

Freedom of information Act.

The first progression is principally about understanding and using the administrative and computing systems in the practice. We move from:

Having a basic understanding of how the practice is managed and the computing system that the practice uses



Making use of the practice administration systems and the computer systems on a routine basis and doing so appropriately



Having a deeper understanding of how clinical care, monitoring systems and practice management are dependent on administration and IT systems. Additionally, using this understanding to suggest improvements.

Looking at each of the competencies in turn:

Demonstrates a rudimentary understanding of the organisation of primary care and the use of primary care computer systems.

As the competency suggests, our level of understanding need not be great but should be sufficient for us to understand the structure of practice management including the roles and responsibilities of those involved, i.e. managers, secretaries, receptionists, IT personnel etc. On the computing side, we should understand the nature of IT in primary care including the uses to which it is put by patients and healthcare professionals and the special provisions made to protect data storage and access.

For example, we should know in general terms about the types of data *collected*, how these are *collated* and used for management and clinical purposes and how the practice IT *connects* with inter and intranets and allows data transfer with authorised agencies such as hospitals and community pharmacies. We also need to understand how computing is changing to allow national accessibility of NHS data through the electronic care record and the opportunities and threats that this brings.

Uses the primary care organisational and IMT systems routinely and appropriately in patient care.

The first competency was about the general principles and making sure we 'understand'. The 'competent' descriptor is concerned with whether we can apply this understanding to practice. The curriculum usefully lays out a number of specific IM&T skills that need to be acquired:

At the end of their general practice training, the GP should be able to:

Demonstrate an ability to use the practice clinical system effectively and routinely for tasks such as prescribing, entering clinical data, processing pathology results, making referrals and accessing data

Comments: When you first joined the practice, you should have had an introduction to the computing system. Whoever does this initial training might also be able to advise you how to monitor your progress with learning to use the system. They may be able to collate feedback regarding e.g. when information is not entered (such as a new repeat prescription) or properly coded (such as a disease or referral) and problems then arise. You should also go through your early consultations with someone who is system-literate to check that you are using the computer appropriately and maximising the things that it can usefully do for you.

Demonstrate awareness of coding systems in current use for effective record keeping

Comment: Coding is the backbone of retrieval and audit. Practices use READ coding and of the many thousands of possible codes, the practice will use a relatively small number of agreed codes, some of which are mandated by external systems such as QOF. As well as *clinical* codes, there will be others that are necessary for *administrative* purposes. For example, a code may be entered when a letter is dictated so that an audit trail is begun. Similarly, for *financial* management a code may be used when an insurance extract or pre-employment medical is undertaken.

Demonstrate the effective use of templates for protocol-delivered activities such as the management of chronic disease, health promotion and risk assessment

Comment: protocols are usually produced in-house either de novo or by adapting a protocol used elsewhere. Practice managers and nurses often share such information between practices but local adaptation is usually needed because practices collate and use their data in different ways. To demonstrate effective use, you should firstly know whether there *is* a protocol that should be used. Usually, you will be prompted by the computer that a protocol is available and asked whether you wish to use it or not. Human nature being what it is, templates do not get filled in if practitioners are not motivated to do so. For trainees, the financial incentive of maximising income through data collection will not be there, but because it is good for patient care and is valued by colleagues, you should still try to attend to computer prompts, such as (in England) the alerts regarding missing QOF data.

To understand the clinical importance of templates, look at the data items that the template requires you to collect and ask yourself *why* these have been chosen. For example, patients with enduring mental illness often have physical illnesses that may be overlooked. This may be because of the dominance of the mental problems, prejudice, difficulty with dealing with them or because health promotion is not actively pursued.

Therefore, the template for the chronic disease management of such patients may ask the expected questions about control of the mental condition, medication review and care plans but may also ask about blood pressure monitoring, screening for ischaemic heart disease, diabetes and so on. Ask yourself what might happen if the templates were not completed. Who loses out and how can this be avoided?

Demonstrate the use of call/recall systems within the practice to the benefit of patient care

Comment: What are the situations in which medical surveillance is necessary? Increasingly, GPs take over the routine surveillance of medical conditions and medications that were once the province of secondary care. For example, chronic kidney disease and insulin dependent diabetes are dealt with in the community. Likewise, drugs such as azathioprine and warfarin can be monitored by the practice sometimes supported by shared-care protocols between primary and secondary care.

Call and recall systems can be used for any situation that requires predictable periodic patient review. A system is especially important where the patient might come to harm if a review is missed for example:

- monitoring thyroid function where biochemical abnormality will occur well before any symptoms or
- bone scanning every few years in patients with osteoporosis, where the follow-up period is long and likely to be forgotten.

Understand the criteria for good data entry including timeliness, appropriateness and accuracy and the connection between this and improved patient health outcomes

Comment: the major purpose of good data entry is to ensure that patient health outcomes are improved. You could both learn what this means *and* demonstrate many of the skills in this performance area by conducting a clinical audit.

Understand the application of the electronic record to analyse data and monitor outcomes, identify trends and warn of deteriorating performance, provide continuous auditing

Provide appropriate prompts to action and reduce risk by warning of potentially adverse outcomes, for example when prescribing. Provide population based call and recall systems, for example in screening

Share information appropriately and securely with the healthcare team

Comment: one of the great advances that data management brings is the opportunity to look at trends and identify problems whilst they are developing and before they become a significant clinical issue. In the past, this could only be done retrospectively e.g. in response to periodic audits or to significant events. One way to look at continuous auditing is to examine, for English practices, QMAS (Quality Management and Analysis System) which can be accessed from the practice computers. This is a national IT system which gives GP practices and Primary Care Trusts objective evidence and feedback on the quality of care delivered to patients. It supports the Quality and Outcomes element of the GP contract and has been in operation since 2004. The system shows practices during the course of each reporting year, how they are progressing in meeting their targets.

How can it be used? An example is that if it is seen that control of blood pressure or blood sugar in diabetics is starting to fall short of the standard, action can be taken to direct attention and resources to the problem.

Demonstrate the use the practice's computer system to improve the quality of care both at the level of the individual and that of the practice

Demonstrate effective use of inter-agency systems such as Pathology links with secondary care, protocol links to the primary care organisations, for example to access local formularies and guidelines, and GP-GP record transfer

Comment: if the practice has not already done so, you could create links to formularies and guidelines perhaps on your computer desktop, through 'favourites' in the Internet browser or by placing links on a shared file that the whole practice can access.

Demonstrate effective use of expert and web-based information systems e.g. MENTOR & PRODIGY

Demonstrate the use of the computer for practice-based searches and audit

Use IM&T in the management of multiple complaints and pathologies, both acute and chronic health problems e.g. by effective use of the medical record and by seeking the best evidence in practice

Comment: you should think about how you use the medical record to improve patient care. Although it is understandable because of the time pressures in each consultation, it is still disappointing that comparatively little use is made of IT to improve decision-making and patient care.

For example, attendances for the same coded problem can be viewed together, thereby illustrating how the problem has evolved. This can uncover important patterns that might otherwise be difficult to see and which the patient may not have pieced together. For example, a patient with occasional chest infections treated by a number of doctors over the preceding two years, may actually have COPD. This becomes a more obvious differential diagnosis when the pattern of consultations is clear.

Information from the patient narrative can also be cross-referenced to the prescribing history. Therefore, it may become quickly apparent that a dry recurrent cough came on shortly after an ACEI was commenced. For patients with multiple

pathologies, it is now very much quicker with computers to scan the past medical history and to appreciate which problems are currently active. This need only take a few seconds before the patient comes into the room and can quickly place the patient's problem within the background context, thus helping us to stop dealing with each attendance as a separate and unrelated event when actually, it is part of a pattern that is emerging.

Demonstrate the use of IM&T to access community-based resources e.g. voluntary organisations and self-help groups

Use IM&T to share information and coordinate patient care with other health professionals

The 'organisational' skills that need to be acquired relate to knowing and observing the agreed practice routines so as to facilitate the running of the practice. This will extend from knowing who does what and involving team and staff members appropriately, to knowing the areas in which practice protocols exist and following these when required.

The organisational and computing systems are also essential to patient care, risk management and the financial security of the practice and those whose livelihoods depend upon it. As an illustration of these points, because of the link between care and income mediated through data reporting, a failure to code a patient's condition appropriately may result in the need for immunisation not being identified (poor clinical care) and clinical targets not being met (poor financial return).

Uses and modifies organisational and IMT systems to facilitate:

- **Clinical care to individuals and communities**
- **Clinical governance**
- **Practice administration**

The previous competency was heavily concerned with 'using' the systems whereas this, under the excellent column, takes this to another level that requires us to understand the systems well enough to *modify* them in line with perceived need.

Learning from practice meetings (see box below) is a good way of observing the practicalities of organisational change. These meetings also help us to learn where the impetus for such changes comes from. Sometimes, it can be from PCO priorities and opportunities to improve care, at other times from practice business needs and occasionally from the need to reduce risk, perhaps prompted by a significant event.

Making changes

This criterion is important, because without the ability to modify systems, practices cannot improve their services. A good place to learn how this is done is in meetings that involve doctors and managers in which new developments or changing demands are discussed.

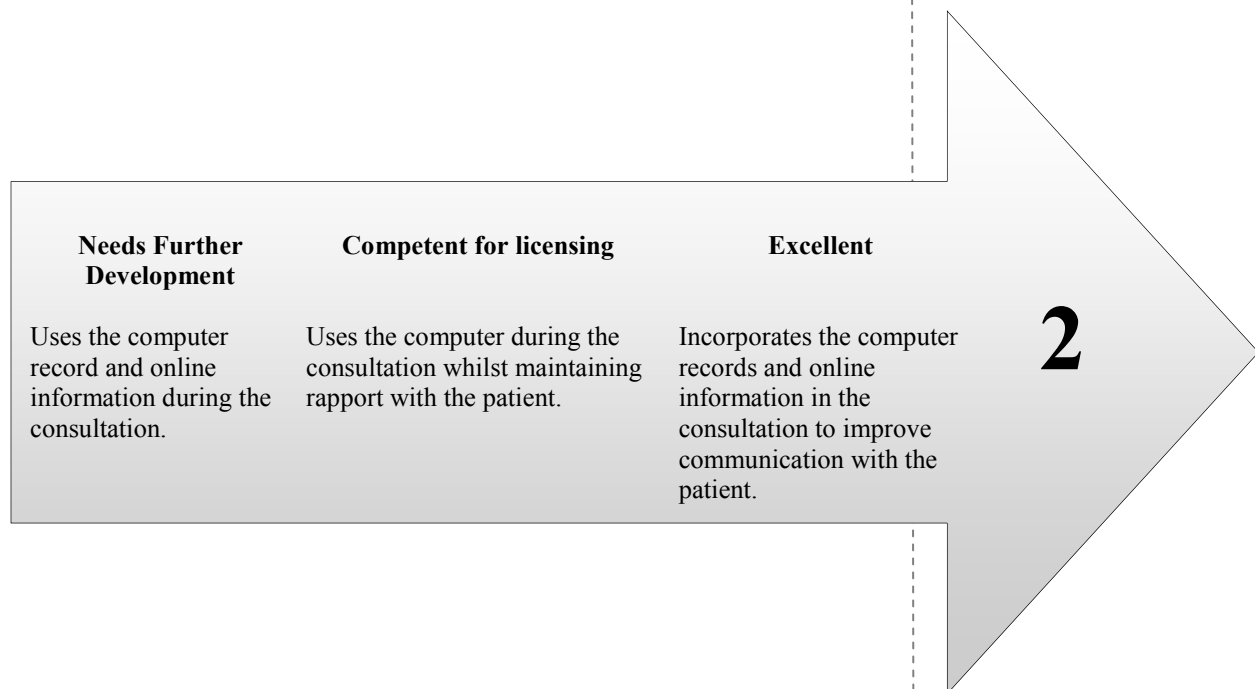
If the practice decides that the service needs to be improved, some form of project management then takes place whereby administration protocols and computing systems are produced or modified. Try to attend these meetings, listen out for proposed changes and look closely at the action points.

Try to follow the simpler ones through so that you can learn about the practicalities of making such changes. There are nearly always unforeseen complications and unintended consequences which may mean that the systems need further tweaking.

The categories in the word picture are not mutually exclusive. For example, the medical literature may suggest that carers are relatively unsupported and that through neglect of their own health, they have an increased risk of morbidity that could be avoided. The practice may then decide to keep a carers' register and develop a protocol for capturing carers' details and proactively offer advice on support services and health checks for those who are not already under medical care. In this example, 'clinical care to individuals and communities' is improved.

To give a further example, the PCO might be keen to improve the medical surveillance of nursing homes through an 'enhanced service' contract. The practice may be willing to take on responsibility for a large number of nursing home patients, to draw up care plans and make arrangements for routine medical review. This would be an additional service to that already provided for the practice's patients and would meet a locality need whilst improving practice income.

In this example, the administration and computing changes would have to meet the needs of the new service, but would also have to be capable of generating information that would assure an external body such as the PCO that the service being offered was of a sufficiently high standard.



The second progression is about learning to use electronic sources of information in a way that augments rather than interferes with good communication. We move from:

Accessing electronic information both on the Internet and within the practice, whilst with the patient.



Using the computer, but not allowing the flow of the consultation to be disturbed as a result of becoming computer-focused rather than patient-focused



Using the data and information available from computer to increase patient understanding and enhance rapport.

Looking at each of the competencies in turn:

Uses the computer record and online information during the consultation.

The information revolution has meant that for large sections of society, i.e. those who have access to a computer and are happy to use it, obtaining electronic information is routine and expected. Not many years ago, patients were asked to come back when we had had the chance to 'look up' their condition. Nowadays, broadband, search engines and trustworthy sources of information make many such re-attendances unnecessary, except of course when we are trying to buy time!

We should know which websites are authoritative/useful and be able to access these easily.

Which types of website are useful to us?

These might include:

- Search engines e.g. Google
- Medical organisations: RCGP, BMA etc,
- Evidence-based medicine: NICE, Cochrane, Bandolier etc.
- Clinical guidelines: British hypertension Society, Society of gastroenterology etc
- Doctors sites: Doctor's net etc
- GP training sites: local vocational training schemes etc
- Journals and magazines: BMJ, BJGP etc
- Local organisations: primary care trust, LMC etc
- Patient sites

At this basic level of ability, we make use of the computer, but perhaps in a way that is not integrated with the consultation. As a result, communication may be adversely affected and the focus on the patient may not be maintained.

Uses the computer during the consultation whilst maintaining rapport with the patient.



Because the patient-centred consultation is so central to the work of the GP, **this competency is felt by most educators to be particularly important in this performance area.**

To be 'competent', we have to integrate the use of the computer with the flow of the consultation, maintaining the focus on the patient and the problem rather than allowing a consultation to be focused on the use of the computer or on attending to the demands it generates e.g. to complete a template.

Several things can be done to help achieve this. Firstly, *fluency* with the use of the computer allows us to access data quickly, thereby reducing time spent away from communicating directly with the patient. *Positioning* the computer is important. If the screen is in the same direction as the patient, we do not need to turn the body away from the patient and eye contact can be maintained for longer. The downside is that it may be more difficult to use the screen as part of the consultation, looking at records or presenting data, graphs and photographs for the patient to look at and discuss.

It can often help to *be explicit* with patients about the use of the computer rather than hope that patients will find it acceptable. Mechanisms include acknowledging/apologising that the computer may interrupt the flow of communication, *signposting* that the computer is about to be used, *explaining* what is being looked for or involving patients, perhaps by checking an entry or by inviting them to enter their own data such as smoking or alcohol consumption.

Patients are quick to notice if we are distracted. Therefore, when talking to the patient it may be better to give them full attention and show them that you are listening and not doing something else (like typing) at the same time. This encourages them to be more forgiving when the computer is used.

Patients regard the computer as being less intrusive if we can show how it helps us to improve their care. For example, we may show a hypertensive patient the recent trend in blood pressure readings in graphical form on the screen.

Computers make demands through their prompts and these can (and often should) be difficult to ignore. However, the prompts are unlikely to be on the patient's agenda and unless they are explained (e.g. 'for our records, I need to check whether you smoke') they will interfere with the consultation and may annoy the patient.

In terms of timing, some doctors reduce intrusion by entering their notes after the consultation rather than as they go along. However, even if our memory is good, this can sometimes be difficult to do because of technical factors. For example, if prescriptions are issued during the consultation but the notes are written later, the link between the problem and the medication may not be automatically created.

If notes are made during the consultation and patients can see the screen, rapport may be compromised if what is being typed does not accord with what the patient thinks was said. Some doctors also ask the patient to check the accuracy of the record that is being made. Doctors may therefore have to explain what is being written if the text could be misunderstood or might cause anxiety. This can happen for example when using abbreviations, when using alarming terms like 'heart failure' or when recording confidential or sensitive information.

Incorporates the computer records and online information in the consultation to improve communication with the patient.

This competency is high level because it demands fluency with communication and a sophisticated understanding of patient partnership. Let us consider this further with a brief detour.

This is a good place to consider why we collect information and what we use it for. TS Eliot famously asked 'Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?' He was alluding to the fact that data has a purpose, which broadly speaking is to help us extract meaning that we can then use to make sound judgements. He was also illuminating a hierarchy from a

low level of meaning (information) at the bottom to a high level of meaning (wisdom) at the top.

In communicating with the patient, we are continually interpreting data in order to extract meaning. Because we work in partnership with the patient to jointly derive suitable management options, it is important that both parties help each other to interpret the data and extract the meaning that it contains.

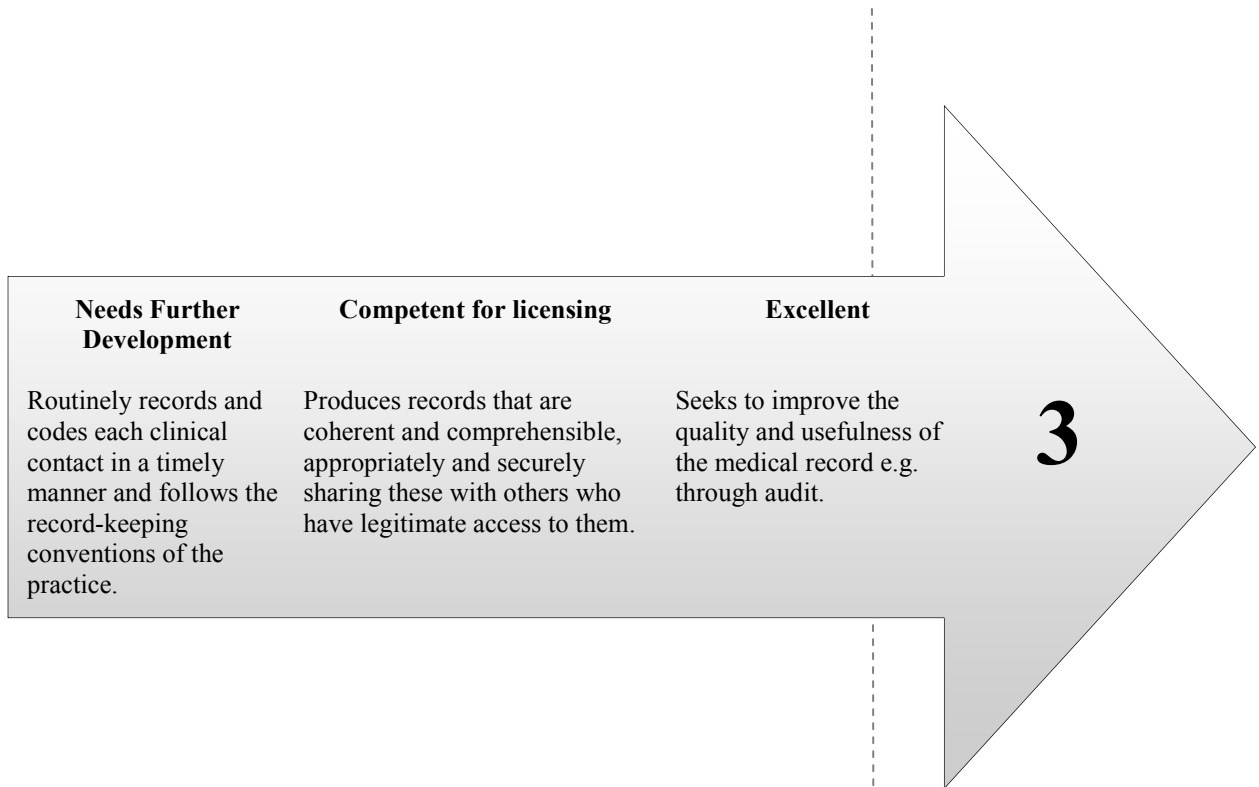
At the top of the hierarchy, Eliot mentions 'wisdom' which can be an off-putting term to some because of its connotations of philosophy and spirituality. However, in our medical context it is worth considering further because wisdom helps us to apply knowledge to practice and because of this, it has practical as well as philosophical relevance to our work as problem-solvers. The literature on wisdom suggests that an individual who exhibits wisdom:

- Knows a lot.
- Prefers to view problems from a broader long-term perspective.
- Sees things in context.
- Is flexible in adopting the multiple perspectives of multiple stakeholders.
- Recognises the uncertainty of life and the limits of their knowledge.
- Is prepared to be tentative or flexible in the kinds of solutions that they offer

Wisdom is therefore about being able to see information in a wider context, which in practical terms means trying to understand who or what might be affected by a problem and in what ways. In shorthand, we refer to this process as understanding the *implications* of a problem. Wisdom also requires us to think about which course of action might do the most good. To do this we must think about *ethical and social* considerations as well as medical ones. We can therefore see that wisdom is part of our holistic approach to patient care. Becoming wiser takes a long time because it requires us to have a lot of experiences of real-life problems, to sustain our motivation to learn the implications of problems (in particular, complex ones) and apply this growing insight to our professional judgement.

Let's now return to this competency, which is to do with making use of information to improve communication. We can now see that the reason for improving communication is in order to improve the *understanding* that doctor and patient have of the problem. This helps us to decide what information to look for and how to share it. For example, we may use information sources that *explain* rather than just inform patients. If our intention is to help patients to understand, it is helpful to use our *teaching skills* and think about the tools that we might use to get a message across. These might include information leaflets, diagrams and photographs. We may recommend books or programmes, give patients homework and encourage them to question us. To improve communication, we need to understand the patient's thoughts and preferences and again, the computer records can help. These may contain information about the past medical history, pre-morbid personality, the patient's preferences regarding medication, how they have responded to previous interventions and so on.

To help develop our communication skills, we could get feedback from colleagues watching the consultation or sitting in and (although this is rarely done) we could ask patients themselves what they thought of our attempts to inform/educate them and which techniques they found helpful or unhelpful. Try it sometime!



The third progression is specifically about good medical recordkeeping, which is the foundation of good medical care as well as the main evidence of it. We move from:

Making a clinical record, which may not be sophisticated but is produced routinely rather than sporadically.



Making records that are cover the major areas, are understandable (e.g. with regard to the use of abbreviations) and are shared with those who need to know.



Analysing the usefulness of records and trying to improve their quality.

Looking at each of the competencies in turn:

Routinely records and codes each clinical contact in a timely manner and follows the record-keeping conventions of the practice.

At this basic level, we need to demonstrate that we are reliable and can be trusted to make a record either at the time of the clinical contact or shortly thereafter. The record may be made after the patient has left the room, to avoid disrupting the patient-centred focus of the consultation. The clinical contact could occur in surgery, but may be a home visit, telephone consultation or internet contact.



Record-keeping conventions

Find out how the practice likes information to be recorded. For example, which codes are used and how do you find out which these are?

What are the templates that need to be completed? How are conditions recorded as being active or inactive?

How are drugs authorised for repeat prescription and how are these checked to minimise errors?

How are problems linked to medication?

What about letters that you need to write. How are these recorded/coded?

Being reliable is critically important for two reasons. Firstly if the patient is given advice but no record is kept, a subsequent consultation will be disadvantaged. For example, the next clinician will not know if there were any significant findings or particular thoughts about differential diagnosis or follow-up. Also, an important pattern may take longer to be recognised, with implications for patient safety.

Secondly, if no record exists and something goes wrong, it can prove very difficult to defend medicolegally. Those looking at our performance may well regard poor record-keeping as being suggestive of poor professional standards in *other* aspects of our care. This may seem unfair, but experience shows that there often is a correlation.

You may wish to audit your notes, looking for: a record of the presenting problem, working diagnosis, some attempt to exclude important differential diagnoses, management plan, follow-up arrangements and use of appropriate computer codes.

Produces records that are coherent and comprehensible, appropriately and securely sharing these with others who have legitimate access to them.



Not surprisingly, this is felt by many educators to be one of the most important competencies within this performance area.

It is said that a good medical record should *recreate the consultation*. In reality, this would probably produce essays! Although lengthy entries may seem to be better because they are fuller, they may deter other people from reading them. In addition, it may be difficult to pick out the important points from the background 'noise'. For example, although it may be important to write down certain significant negative findings (e.g. a lack of photophobia in patients with severe headache) lengthy lists of negative findings are unhelpful and obscure the salient points.

To be competent, the record should also be 'coherent and comprehensible' (see box on the next page)

For notes to be easily understood they should be written clearly, avoiding unnecessarily complicated technical language and only using abbreviations or shorthand phrases that are commonly understood. An additional factor is that patients often read their records, for example as they are being written in consultation or on request. This is an added incentive to avoid mystifying the record.

Doctors have a responsibility to keep records secure. Practically, this may mean that we take care to avoid putting records on screen where they can be seen by those who do not have legitimate access. For example, if we were to investigate the patient's background by looking at her husband's notes whilst she was in the room, we would have to ensure that she could not see the screen.

Records should also be shared with other clinicians involved in the patient's management where this is needed. For example, if a significant event has occurred such as a child protection issue, or if a referral has been made, the need to inform others will be obvious. Sometimes, sharing a record is needed in order to maintain good clinical care, for example when we go on holiday and another doctor is temporarily taking over the patient's care.

Seeks to improve the quality and usefulness of the medical record e.g. through audit.

At the excellent level, we may improve the medical record in a number of ways. For example, a formal audit of record keeping might be conducted to look at variation between clinicians in the records that they keep. This can act as a prompt for discussion.

Individual feedback may be (tactfully) given to colleagues when records are inadequate or incomplete such as when a computer prompt to 'check the patient's blood pressure when next seen' is left unattended.

Abbreviations can be a problem when they are not commonly understood, so an agreed list may be drawn up with a key to the abbreviations. These abbreviations may also cover aspects of examination and management.

The technology of the computerised record can also enhance its usefulness. For example, computer macros might be used to enter standardised text such as the advice given for a viral URTI, or to produce a standardised prescription, for example for Helicobacter eradication.

More complex macros can be used e.g. to generate a summary of the patient's diagnoses, repeat medication, allergies and most recent consultations that can be used when referring a patient or admitting a patient to hospital.



Coherent notes

This means that notes should be **orderly, logical and consistent**. The computer lays down an orderly structure by virtue of the subheadings used, through which the clinician is guided when making a record.

Being logical means that relevant information in relation to the problem is sought and recorded. Therefore, an ESR would seem to be a relevant investigation for a patient with headache, but an MSU would not.

Being consistent means that our thinking, as seen from the notes, is justifiable on the basis of the available information both within this consultation and from previous consultations that