7 Specific problem solving skills

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Specific problem solving skills include the ability:

- To relate specific decision making processes to the prevalence and incidence of illness in the community;
- To selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient;
- To adopt appropriate working principles, e. g. incremental investigation, using time as a tool and to tolerate uncertainty;
- To intervene urgently when necessary;
- To manage conditions which may present early and in an undifferentiated way;
- To make effective and efficient use of diagnostic and therapeutic interventions.

7.1 Introduction

Specific problem solving skills in family practice relate to the context in which the problems are encountered, the nature and natural history of the problems themselves, the personal characteristics of the patients presenting with these problems, personal characteristics of the doctors who manage them, and the resources we have at our disposal to manage these problems. Problem solving in general practice is highly context-specific.

The task of problem solving when faced with early undifferentiated illness requires the GP to use a problem-based approach rather than a disease based approach. Several good primary care textbooks are organized along these lines.

Use of time, incremental investigation and coping with uncertainty are part of the attitudinal change that may be necessary for those learning general practice. There is a growing body of literature on these topics to support trainers who encourage learners to reflect on these unique aspects of problem solving.

Both shared management of problems with the patient and the conflict over the fair use of limited resources raise ethical issues connected with problem

solving. The trainer of general practice can focus attention to ethics when appropriate in specific cases or may present case simulations to provoke discussion of these problems and coping strategies.

A large part of specialty training is devoted to problem solving skills. Over a period of several months or years the trainee will develop a unique personal clinical style under the guidance of a tutor. Problem solving is best taught in the clinical setting with actual patients followed over time to assess outcomes.

7.2 Assessment methods

Assessment of the performance of problem solving skills in primary care requires a variety of methods. Direct (sit-in with real patients; video-taped consultation) or indirect (e.g. chart review) observation of practice using checklists and global ratings can be used. The performance of decision making can be assessed by performance review. Patient interviews or questionnaires can be used to assess patient satisfaction with the doctor's attempts to involve them in their care.

7.3 Documentation tools

A list for the observer, not related to specific clinical conditions, but used for overall assessment of problem solving skills:

The assessor should observe and evaluate if the GP being assessed is able to	Never				Most of the time
1. Have in mind the epidemiological situation in society, so that he first considers the most probable reasons for any complaint	0	1	2	3	4
2. Selectively collect appropriate information	0	1	2	3	4
3. Use properly the specific information gathered	0	1	2	3	4
4. Carry out appropriate investigations	0	1	2	3	4
5. Involve patients in decision making, and respect patients' preferences	0	1	2	3	4
6. Take into account psychological, social and family factors	0	1	2	3	4
7. Empower the patient, make him feel well and valued	0	1	2	3	4
8. Make use of previous knowledge of the patient	0	1	2	3	4
9. Be open-minded about that any complaint in some cases may not be what he first assumed	0	1	2	3	4
10. Use time as a diagnostic tool	0	1	2	3	4
11. Act appropriately in case of an emergency	0	1	2	3	4
12. Maintain proper organisation in the practice and proper use of time	0	1	2	3	4

A mix of patients should be observed in order to get a final score on the score sheet above.

These points could be an observational sheet for a peer observer. Few single consultations will involve all these points, but during a day one surely will be able to evaluate all the points.

7.4 Abilities

Case vignette.

Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.

Case vignette.

Susanne Brioché, a 51 years old woman contacts her GP because of epigastric pain and nausea lasting for two weeks. She asks for a referral to a computer tomogram.

Case vignette.

Sara Campos, a previously healthy 33 years old woman expecting her first child shows up for pregnancy control in her 34th week. Her blood pressure has increased to 160/105 mmHg, she has protein ++ in her urine and is feeling generally unwell.

Case vignette.

Natasa Pontosic, a 47 years old woman contacts her GP because of tiredness, pain in her head and stomach and numbness in her legs.

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 1: To relate specific decision making processes to the prevalence and incidence of illness in the community	<i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i>	<ul style="list-style-type: none"> • History taking of symptoms related to the most probable illnesses • History taking to rule out red flag symptoms • Physical examination for the signs of the most probable illnesses • Ordering of just the appropriate test • To make decisions according to the most frequent reasons for the contact: appropriate management plan (including watchful waiting, patient involvement, patient consent, appropriate risk taking) 	<ul style="list-style-type: none"> • Direct or indirect observation of the first contact of the patient with symptoms: sitting in, video-tape • Chart review • Review of a logbook with defined number of the management of defined cases • For use not only as a normative assessment, but as a formative assessment, with subsequent feed-back to the GP 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 2: To selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient	<i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i>	<ul style="list-style-type: none"> • Selectively collecting appropriate information • Not using time on issues not related to the actual situation • Carrying out a focused – not a general – physical examination • Explaining a management plan and making sure the patient understands and feels comfortable with it • Showing good communication skills • Use an appropriate amount of time 	<ul style="list-style-type: none"> • Direct or indirect observation of the first contact of the patient with any condition: sitting in, videotape • Chart review • Review of referrals • Review of a logbook with defined number of the management of defined cases 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer
Ability 3: To adopt appropriate working principles, e.g. incremental investigation, using time as a tool and to tolerate uncertainty	<i>Susanne Brioché, a 51 years old woman contacts her GP because of epigastric pain and nausea lasting for two weeks. She asks for a referral to a computer tomogram.</i>	<ul style="list-style-type: none"> • Elaborating a management plan including simple treatment and watchful waiting. • Involving the patient in the diagnostic reasoning and the management plan • Exploring the patient's fear of having a serious condition • Making the patient feel secure that she will be taken care of • Not referring the patient for investigations with no proper indication • Making reappointment for follow-up • Referring for appropriate investigations when a condition shows an unexpected course 	<ul style="list-style-type: none"> • Direct or indirect observation of first contact of the patient with any condition, especially those involving diffuse and unspecific symptoms • Chart review • Review of a logbook with defined number of the management of defined cases 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 4: To intervene urgently when necessary	<i>Sara Campos, a previously healthy 33 years old woman expecting her first child shows up for pregnancy control in her 34th week. Her blood pressure has increased to 160/105 mmHg, she has protein ++ in her urine and is feeling generally unwell.</i>	<ul style="list-style-type: none"> • Focused history taking of symptoms with focus on alarm signs and symptoms – red flags • Physical examination with focus on alarm signs – red flags • Immediate treatment or referral to appropriate level of care • Reassuring but realistic communication with the patient about diagnostic thinking and management plan • Appropriate use of time 	<ul style="list-style-type: none"> • Direct or indirect observation of first contact of the patient with a probable serious condition requiring urgent action • Chart review • Review of a logbook with defined number of the management of defined cases 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer
Ability 5: To manage conditions which may present early and in an undifferentiated way	<i>Natasa Pontosic, a 47 years old woman contacts her GP because of tiredness, pain in her head and stomach and numbness in her legs.</i>	<ul style="list-style-type: none"> • Adapting attitudes characteristic of a generalist orientation, including curiosity, diligence and caring • Adapting a stepwise procedures in medical decision-making, using time as a diagnostic and therapeutic tool • Understanding the inevitability of uncertainty and apply strategies to tolerate uncertainty. This will require: <ul style="list-style-type: none"> • Making follow-up appointment • Making the patient feel comfortable with the follow-up plan • Involving the patient in your diagnostic thinking • Instructing the patient to make earlier contact in case of worsening 	<ul style="list-style-type: none"> • Direct or indirect observation of first or subsequent contact of the patient with a condition related to ill defined symptoms, which might resolve or which may also turn out to be a serious condition • Review of a logbook with defined number of the management of defined cases 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer

Ability	How do GPs demonstrate this ability? (case vignette)	Features of this ability	Assessment method	Who could assess?
Ability 6: To make effective and efficient use of diagnostic and therapeutic interventions	<i>Kurt Schmidt, a previously healthy man aged 20 years in a Western European country contacts his GP for a cough lasting three weeks.</i>	<ul style="list-style-type: none"> • Behaving according to an understanding of cost-benefit of tests and treatments, and the number needed to treat or harm for specific treatments: • Not ordering expensive test when cheaper ones are available • Not prescribing drugs that are unnecessary costly for the patient or for society 	<ul style="list-style-type: none"> • Direct or indirect observation of consultation with a patient with any acute or chronic condition • Chart review • Review of referrals • Review of lab ordering • Review of drug prescriptions • Review of a logbook with defined number of the management of defined cases 	<ul style="list-style-type: none"> • Peers • Supervisor • Tutor • Trainer

Table 15: Specific problem solving skills, abilities 1–6