QUALITY ASSURANCE IN FAMILY PRACTICE

With special emphasis on Quality Circles

uality assurance is a continuous process of learning and improving all aspects of patient care. The direction of change (improving) is more important than the size of the jump. Quality is difficult to define — it is in the eye of the beholder. The patient and the doctor may not agree on the quality of a service or act and two colleagues are likely to disagree about the quality of a medical event. Like sex appeal, we all have a concept about it, but this can vary significantly according to age, culture, etc.

"Quality is not an instance product. It is the result of a clear philosophy, committed people and hard work." (Orlandini, KLM)

"Quality is the ability to improve." (T. Spencer, 1995) In the past, quality assurance activities were mainly focussed on attending continuing medical education meetings or courses. In the 90's, good quality assurance activity has the following features:

- 1. It is part of your normal work.
- 2. If you are working in a team, all should be involved.
- 3. There should be explicit goals and targets.
- 4. There is continuous data collection.
- 5. There is emphasis on patient outcome.
- 6. There is emphasis on patient management.
- 7. There is emphasis on practice management.
- 8. Your practice performance is visible to others.

What advantages does quality assurance have for me?

It improves patient care, work satisfaction, gives one more insight into one's own way of working, improves patient satisfaction, gives patients better value for money, improves reputation of family doctors and others.

Quality Circles (Peer Review Groups)

I prefer the term "quality circle". "Peer review group" has the unpleasant implication of checking on each other.

This has become the most promising form of practising quality assurance. A group of colleagues who live in the same geographic area meet regularly to report on and discuss quality assurance activity. The optimal size is eight to twelve people. Frequency of meeting: monthly to six-weekly, at least six to ten times annually.

One or two group leaders are selected, but turns could be taken to facilitate an evening. It is good to keep minutes of meetings. After the members get used to each other and feel safe in being honest, it can be a lot of fun.

This has become the most promising form of practising quality assurance. It is applied successfully in many countries, for example Germany, where the aim is to involve one-third of all doctors on a voluntary basis. In Holland it is compulsory for all family physicians to belong to a peer review group.

These groups differ from Balint groups in that they focus on technical issues — usually clinical topics, as opposed to the doctor-patient relationship in Balint groups.

The Quality Cycle

The quality cycle represents the steps that can be followed when addressing a problem. The aim of the exercise is to look at one's work and reflect on it. The quality cycle should be a useful tool and not a rigid framework.

The basic cycle is depicted in the diagram.

You need not always start at the top of the circle. You could for example start with data collection or at another point.

- The cycle can be subdivided into the following:
- 1. Prioritise problems and select one.
- 2. Decide what is good care for this topic in your practice. In other words, develop your own guidelines.
- 3. Select review criteria and standards by which to measure how you are doing.

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- 4. Collect data.
- 5. Analyse the data.
- 6. Spend time giving feedback and reflecting about it.
- 7. What are the likely barriers to change, if you want to improve on your care of this topic?
- 8. Decide what you are going to change.
- 9. Plan for managing change.
- 10. Implementing change.

11. Evaluate and follow up.

Each of these points will be discussed separately.

1. Selection of problem

This could be very easy, if all agree. If the decision is not easy, the "nominal group technique" can be used: brainstorming is done and all possible topics are listed. Each group member can vote for five topics. The topic with the highest vote is selected.

Choose a topic

Monitor results

and reflect

Take action

What is good care

in our practice?

Collect data

"How am I doing?"

What is a good topic?

- It should be relevant to daily care and have consequences for patient care.
- 2. It should be common.
- 3. It needs to be improved.
- 4. The problem is definable.
- 5. It is not very controversial or complex.
- 6. It is possible to formulate review criteria and collect data.
- 7. Care for this topic probably needs improvement.
- 8. It is of interest to all involved.

Is it a real problem? If there is any doubt, a "prewash" should be done: investigate, do a small study.

Possible sources of topics

- 1. Anything you feel uncertain about, eg. your management of diarrhoea in children.
- 2. Patients complaints or survey results.
- 3. Practice or staff problems.

For each of these, there could be problems associated with: *the structure* (eg. records, equipment, how appointments are organised); *the process* (what happens, eg. waiting times, are BPs of all patients taken and recorded, are diabetics' feet examined); *patient outcome* (how many diabetics need leg amputations, how many hypertensives die of strokes).

2. What is good care in our practice?

There is a danger of getting lost in a long discussion. Avoid this by selecting a guideline with a family practice emphasis — one that is preferably developed locally, eg, the South African Family Practice manual, MASA Guidelines. Discuss the guideline in the group and decide what is relevant to your practice.

Example: Asthma guideline

Inhaled steroids are recommended for patients with moderate and severe asthma, but perhaps your patients cannot afford or obtain them. Adapt your guideline accordingly and decide when oral steroids would be indicated. Never accept what the ivory tower scientific emperors say as the final word — it may be that they are naked. On the other hand, try to stick closely to accepted practice. In ancient China, a nose was considered to be ideal if it looked like the emperor's. Following your own nose is not always a safe thing.

3. Selection of review criteria and standards

At this stage decide to measure the quality of the topic chosen.

Review criteria

These are systematically developed statements that can be used to



assess the appropriateness of specific health care decisions, services, and outcomes. It must be measurable. *Standard*

The percentage of events that should comply with the criterion. It should be realistic and achievable in your practice — the ideal will always be 100%.

A few examples are listed here:

Example 1: Diagnostic criteria — Looks at process.

Problem selected: Do the hypertensives in my practice have hypertension? Do they satisfy diagnostic criteria?

Criterion: Patients with initial diastolic blood pressure of 90-99 and systolic blood pressure 140-170 have been followed up for six months before drug treatment is started (see *SA Fam Prac Manual* 3.26).

Standard: 90% of patients who returned were followed up with lifestyle modifications only.

Example 2: Management criteria — Measures outcome.

If the problem you selected is the control of hypertension in your practice:

Criterion: Diastolic blood pressure below 95mm Hg.

Standard for your practice: 80% should have a diastolic blood pressure below 95.

Criterion: Patients should be seen within one hour of arriving. *Standard:* 90% should be seen within one hour.

Example 3: — Measures outcome.

Problem: PAP smears of women over 30 in the practice. *Criterion:* One PAP smear every three years. *Standard:* 90%

Example 4: — Measures outcome.

Problem: Blood glucose control in type two diabetics. *Criterion:* Fasting blood glucose less than ten. *Standard:* 70%

Example 5: — Measures outcome of care.

Problem: High leg amputation rate among diabetic patients. *Criterion:* Leg amputation.

Standard: 100% should not have an amputation within 15 years of diagnosis.

(A GP in the USA looked at this problem in the practice. On thinking about it, he thought he could reduce the amputation rate by regular leg examination. The barrier to change was that patients often have lots have clothes, pantyhose, etc., on which tempts one to skip the examination. *Intervention:* All diabetics should come barefoot into the consulting room. *Follow-up 1-2 years later:* Amputation rate had halved.)

4. Data collection and analysis

Are we practising according to what we have decided is "good care"? *Meten is weten* — to find out, we need to collect data about certain aspects of care that reflect the quality of care. The KISS approach is best — keep it simple.

Who collects the data? This will depend on the type of problem you are looking at and your practice organisation. If you are looking at hypertension control, you would be the best person to collect the data. (See Figure 1 for a useful form to use for this purpose.) If the problem is the delay in getting appointments for patients, your receptionist may, for example, record daily at 12h00 the number of days within which non-urgent patients get their bookings.

Example: A group practice looked at this problem.

Criterion: Patients should get a booking within three days.

Standard: 80% get a booking within three days.

Result: The four male doctors did very well. The one female doctor was overbooked.

Reflection: Many female patients and mothers insisted on seeing the female doctor.

Intervention: Appoint another part-time female doctor. *Follow-up:* Problem solved.

Using a computer for storing data makes the exercise easier. EPI-INFO 6 is available free of change. For more sophisticated studies, consult books or your friendly local family medicine department for help to do proper sampling.

- Three golden rules apply to sampling:
- 1. Have a good patient list;
- 2. Be clear if you are dealing with a qualitative or quantative study;
- 3. If you have to take a sample, do it properly;
- 4. Extract the data carefully.

5. Feedback and reflection

This is really the crux of the exercise. The real beauty of peer review groups is that one can compare notes, harvest other people's ideas and experience and achieve olympic strides in quality assurance.

Figure 1. A multi-purpose data sheet may be used for data collection during the consultation.



6. Barriers to change

"By doing nothing, we change nothing, because we hang on to what we understand — even if it is the bars of our own jail." (Le Carre, 1989)

Example: Requesting X-rays for ankle injuries. Are they indicated? If X-rays are ordered when there is no indication to do so, what would be the barriers to change?

The patients: they want something done — they are used to X-rays always being taken.

The doctor: is scared of missing a fracture; is scared of the specialist; may not trust the guideline (SAFP Manual 6.41: "Twisting injury of the ankle"); may not trust his own judgement; may not be aware of any guidelines.

These barriers should be discussed and decisions made. Are some of these barriers valid, or are they the bars of our jails?

7. Decision on what and how we are going to change

"Men more frequently need to be reminded than informed." (Samuel Johnson)

You need to be clear about what needs to be changed and willing to change. Orientate the rest of the team, if you work in one. Don't relapse.

8. Evaluation/follow-up

Decide when you are going to review the topic. Enough time should be given so that the intervention has a chance to work.

9. Examples of problems tackled by family physicians

Example: *Situation:* Group practice, Holland

Problem: PAP smears not done systematically

Criterion: All women 30-50 should have had a PAP smear in the last five years.

Intervention: Letters sent to all females 30-50.

Follow-up after three months: Only 50% had responded.

Barriers to change: Some were phoned and it transpired that many are working and could not attend the surgery.

Intervention: Evening consultations were offered and PAP smear rate was increased to 95%.

Example: Situation: Group practice, Holland

Problem: Eye testing of diabetics. A "prewash" had revealed that only four patients had their eyes tested.

Criterion: (Based on NHG guideline) Every diabetic patient should have a fundoscopy by an ophthalmologist every two years.

Standard: 90% should have been examined within one year.

Data collection: Management plan:

The receptionist asks every diabetic when they were last tested and refers where needed to an ophthalmologist with a standardised letter. A computerised reminder system is devised which automatically alerts practice management.

Evaluation after one year: 75% have had their eyes tested.

Further intervention: The rest of the patients are phoned. Some already had appointments and some had forgotten. It will be reviewed in another year.

10. How one group started

Situation: Quality circle, Kassel, Germany. Seven GPs and one physician in general practice.

1. First meeting:

Members introduce themselves. A facilitator is appointed. A discussion is held about a possible topic and it is decided to look at the management of sore throat. The following is discussed:

- 1.1 Talk about a patient with sore throat
- Everyone talks about patients with severe complications, eg. peritonsillar abscesses or rheumatic fever. "I am now very quick to prescribe antibiotics."
- 1.2 How do you treat yourself if you have a sore throat? Most use vitamins for 2-3 days. If there is no improvement, antibiotics are taken, but only for 2-3 days, although most would say ten days is the correct duration.
- 1.3 Would you like to document the management of sore throat in your practice?

Members expressed fear and curiosity.

- 14. What is the outcome of your treatment?
- Most presumed that the patients were all right because they didn't return.

It was decided to draw up a short questionnaire and record the clinical findings of sore throat patients and do a telephonic followup of 10-15 patients. A medical student was available to help.

2. Second meeting

Fifty complete questionnaires were handed in from five practices. Thirty patients had been followed up telephonically.

Results

- 1. It took only about one minute per patient to complete the questionnaire.
- More than 50% of patients also had cough and rhinorrhoea. 2.
- 3. More than 40% were given antibiotics Pen V, Erythromycin, Amoxacillin or Tetracycline.
- 4. More than 50% were also given other symptomatic treatment.
- 5. The telephone calls were time-intensive, but pleasant - the patients appreciated them. Half were cured after 2-3 weeks and the rest were improved. Two were unhappy because they had not received antibiotics. Three had side-effects due to antibiotics: rash, vomiting, diarrhoea.

A few articles on the subject of sore throat were given to participants to be discussed at the next meeting. It included the Dutch guidelines.

3. Third meeting

- These comments were made regarding the articles on sore throat:
- Quick tests for streptococci are not helpful poor predictive value.
- Throat swabs are recommended but rarely done in practice. It was not clear how much could be claimed for it from the medical aids.

- 3. Ten day treatment: all agreed but raised practical problems: patients rarely completed such a long course; the penicillin packets didn't contain a suitable number (in the RSA: 20 or 100).
- 4. The main problem is the expectations of patients. May one refuse a patient's request for a specific prescription? Consensus was reached that patient satisfaction should improve: when the doctor is assertive and confident; when the patient's thoughts and fears are explored; when information about home remedies is given in a written form (called a "green prescription"); when an explanation is given of treatment options and supportive treatment is offered.

A first draft of the group's guideline was written.

4. Fourth meeting

One participant showed a video of a consultation he had with a patient with sore throat. The consultation was discussed with reference to the guideline.

Final guideline: Patient with sore throat as new complaint.

History - Duration: Is there cough, rhinnorrhoea, hoarseness, ear pain, fever? Is the temperature greater than 38°C?

Examination: Mouth — look for exudates, ulcers, colour change, strawberry tongue (Scarlet Fever), uvular displaced (peritonsillar abscess). Lymph nodes - enlarged? tender? Gums - rash, petechiae? (Infectious mononucleosis)

Diagnosis: Consider throat swab if there is an exudate. Paul-Bunnell test or differential count if infectious mononucleosis considered.

Differential diagnosis: Viral etiology if cough, rhinorroea, hoarseness (with or without lymph nodes).

- Bacterial etiology likely if:
- No cough present; but 1.
- 2. Lymph nodes; Exudate and 3.
- 4. Fever.
- Antibiotic treatment:
- 1. If the four criteria for bacterial infection present (likelihood of strep infection around 50%).
- 2. Scarlet Fever.
- 3. Very ill.
- 4. Immune deficiency.
- 5. Positive throat swab.
- 6. History of rheumatic fever.
- Heart valve defects or replacement. 7.

Choice of antibiotics: Pen V for ten days. If allergic, Erythromycin.

Symptomatic treatment: as indicated. Aim at home remedies.

Treatment not given: Lozenges containing local anaesthetic or antibiotics.

Additional information:

Large lymph nodes: think of infectious mononucleosis. If blood picture is normal, think of cytomegalo virus or toxoplasmosis. If disease is protracted, consider leukemia, tumors, agranulocytosis. Peritonsillar abscess: refer.

Follow-up:

Return if symptoms not better in 3-5 days. If antibiotics prescribed: see in 2-3 weeks to examine heart and urine.

Note: This is this group's guideline and not a rigid rule to be followed. The individual patients circumstances must always be considered.

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