Improving the use of patient-held records in the Emtshezi Subdistrict

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This research received the Clinical Excellence Award for the Best Research Paper Presentation, sponsored by the Discovery Institute, at the 12th National Family Practitioners Conference in Stellenbosch, August 2003.

Abstract

Background

The aim of this interventional study was to assess, document and improve the Patient-held Record (PHR) System in the Emtshezi Subdistrict. The study began in 1998 and was conducted using a Quality Assurance (QA) Cycle, which focuses on systems and processes and encourages a team approach to problem solving and quality improvement.[1]

The keeping of good, accurate health records, as well as the communication of this clinical information between health practitioners, is essential for good quality practice in primary care. In Emtshezi, many patients receive care from different health facilities and practitioners. Historically, the health services in the Subdistrict, as in much of KwaZulu-Natal, were fragmented. Clinics, hospitals and private practitioners in the Subdistrict used a variety of different health records systems, which did not integrate with each other. There was very little communication between these health providers, possibly because no overall plan for health records was worked out for the Subdistrict or the Province at that stage. The Emtshezi Subdistrict forms part of the uThukela Health District of KwaZulu-Natal and lies 120 km northwest of Pietermaritzburg. The population is mostly rural. The major towns are Estcourt, Weenen and Winterton. In the Subdistrict, there is one district hospital of 300 beds, 10 residential clinics and four mobile clinics. There are more than 20 private practitioners, the majority of whom practice in Estcourt.

The term “ambulatory records” refers to records that are used by outpatients as opposed to records used for admission to a hospital ward. Two basic types of ambulatory medical records are used throughout KwaZulu-Natal – the A4-sized Facility-held Record (FHR) and the small PHR (see Photograph 1). They are both called “Outpatient Record”. The FHRs are used only at that facility and are filed at the facility. The PHR is kept by the patient and can thus be used at any health facility.

Method

The method used for this study was the Quality Assurance Cycle. Focus group discussions were the main research tool utilised. This research was conducted with ethical approval as the dissertation towards an MFamMed degree at MEDUNSA.

Results

The following problems were identified: poor communication of clinical information between health facilities. There were problems with the records system in the hospital, poor design of ambulatory records and the use of multiple PHRs by patients. The following solutions were proposed: A single, common PHR to be the definitive ambulatory health record for every patient at district level. The design of the PHR has been improved and meets the legal requirements for a health record.

Conclusions

PHRs have a valuable role to play within the District Health System in South Africa. They are especially useful in improving the standard of health care, as well as the continuity of care between the district hospital and the clinics and community health centres that the hospital supports. PHRs form a vital link, not only between facilities, but as a link through time: patients need a definitive personal health record for themselves, a record that is problem-orientated and tracks their health and illnesses throughout life. We need to move away from episodic care. Hospital doctors need to be more seriously committed to communicating with the PHC clinics and private practitioners who refer to that hospital. Senior managers and policy planners need to be more aware of the potential of PHRs as a means of transformation towards a better district health system.

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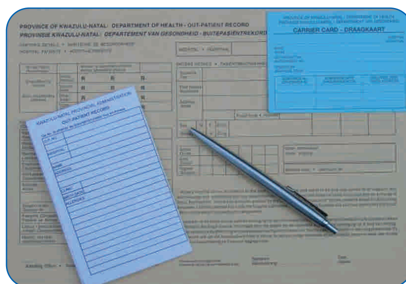
Figure 1. The FHR and PHR used in KwaZulu-Natal



Review of patient-held records

PHRs, also called Patient-retained Medical Records or Cards, have been widely and successfully used as ambulatory records throughout Southern Africa in recent decades. There has been widespread and enthusiastic support for the PHR by those who have used them. Germond et al. recommended that health practitioners should seriously consider implementing PHRs.[2] Garrat wrote: "One of the many really impressive things that I found in the KwaZulu health system when I arrived in 1986 was the Patient-held Records system" (SA Health-link Discussion Group, Dec. 1998). Pattison and Geldenhuys entitled their article about a patient-held antenatal record as "Patient carried notes: Can we afford to ignore their use any longer?"[3]

Advantages of PHRs

Continuity of care is improved by the PHR because of the ready availability of clinical information.[2,4,5] Ongoing notes, discharge summaries and prescrip-tions are carried by the patient in the PHR. In Lesotho, the majority of Primary Health Care (PHC) nurse practitioners and doctors favoured the PHR, called the *Bukana,* because it improved quality of care through continuity.[2] In Botswana, PHRs facilitated the coordination of care among different units within the health system.[6] Health practitioners, especially hospital doctors, may perceive that continuity of care is satisfactory for the patients who attend their hospital, as there is an ongoing FHR. This is not the case, however, as patients seek health care at a number of places. A study in KwaZulu-Natal showed that most

patients use several health facilities.[7] In Ga-Rankuwa, it was decided that the PHR would be implemented because, "In our area, the episodic care of patients, who shop around between private family practitioners, clinics and hospitals involved in primary care, make record keeping a major problem. This situation leads to the perpetuation of episodic care."[8]

There is a perception that the health record is there for the health practitioner and not for the patient.[9,10] The PHR should really be owned by the patient – this would encourage patients to look after both their record and their health.[2,11] Patients may wish to read their files and find this helpful for remembering the dates of appointments, and checking on their treatment, blood pressure, weight, blood sugar, etc.[4] Patients view their PHR as a document for personal use and as a source of knowledge.[12]

Surveys have shown that most patients (89%) prefer to use a PHR rather than an FHR,[2,4,7] as time spent in the waiting area is thus reduced.[13] There is less repetition of tests and investigations, the practitioner spend less time eliciting the medical history and clerks spend less time searching for FHRs.[2,6,13]

PHRs improve the quality of clinical note taking.[14] Practitioners have to subject themselves to the discipline of summarising findings and plans on paper before the patient leaves. PHRs are relatively small and a summary is all there is room for.

Table I: Advantages of PHRs

Advantages of PHRs
• Better continuity of care
• A sense of ownership
• People prefer PHRs
• Improve quality of note taking

Disadvantages of PHRs

Some health practitioners have concerns about confidentiality. However, less than 10% of patients have experienced other people reading their PHR.[2,4] When using a PHR, it is up to the patient to maintain whatever confidentiality is desired. This may be difficult in some cultures, where the husband and in-laws have a high degree of authority. Circumspection may be needed when deciding on the content of the clinical notes.[2]

Loss of the PHR is a concern. In Lesotho, where a PHR system is widely and properly used, patients reported a loss of 13% of PHRs, while doctors and nurses estimated that less than 10% were lost.[2] In North West Province, 2.6% of patients lost their PHR over a 30-month period.[4] In Botswana, 1.9% of PHRs were lost or forgotten of a total of 18 000 clinic visits.[6] Conversely, in most hospital records departments, up to 10% of FHRs cannot be found.[6,8,11]

Private practitioners have been reluctant to use a PHR.[4] Although 51% of private practitioners said that their patients often brought a PHR, only 21% had it as the usual record in their practice.[15]

Table II: Disadvantages of PHRs

Disadvantages of PHRs
Concerns about confidentiality
Loss of the PHR
Not used by some practitioners

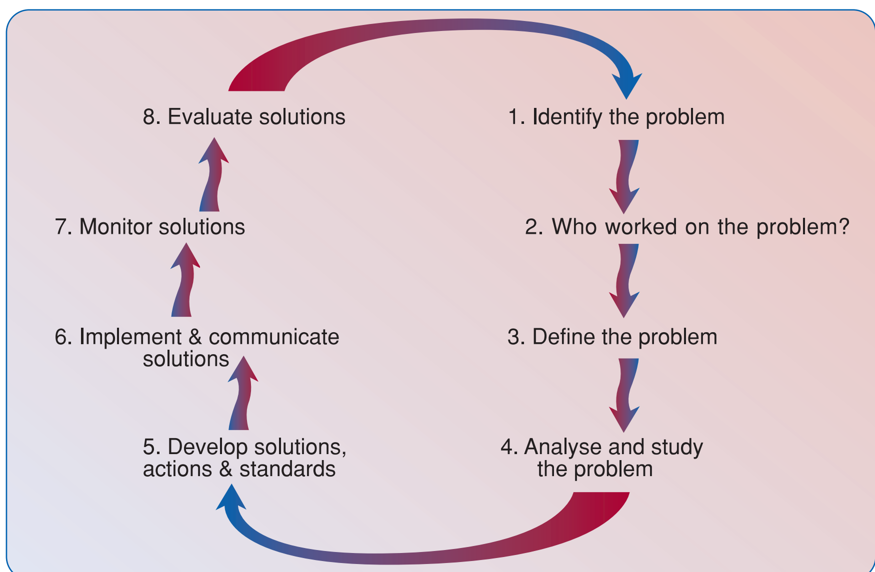
Methodology

Quality assurance (QA) was the methodology used for this research. The QA Cycle, taken from DiPrete Brown et al.,[1] was followed as per Figure 2.

Starting with Step 1, the problem had been identified by the District Management Team as being that "*There is a dysfunctional ambulatory records system in the Emtshezi Subdistrict*". In Step 2, a QA team was assembled to work on the problem. It consisted of people involved in the records system or who had authority to make changes, such as the hospital manager; hospital and community matrons, the administration officer responsible for the Records Department, the pharmacist and the District Medical Officer. In Step 3, the QA team defined the problem: *"It has been identified that there is a dysfunctional ambulatory clinical record system in the Emtshezi Subdistrict. Shortfalls in the present system pertain especially to a lack of continuity of health care, poor flow of information, loss of FHRs and lack of a definitive record for the individual patient."*

In Step 4 of the QA Cycle, the main data collection tool used was the focus group discussion (FGD),

Figure 2: The QA Cycle



which is useful when a broad overview is sought about a topic on which relatively little research has been done.[16] FGDs help uncover new ideas and personal experience. In this study, the population was all people using ambulatory records, whether as patients or practitioners. The sample was made up of key stakeholders who were engaged in homogenous groups. Thirteen FGDs were conducted with patients (chosen randomly at the subdistrict hospital and at a community health centre), hospital and private doctors, PHC nurses from five fixed and one mobile clinic, and administration clerks and pharmacy staff from the hospital. In the FGD, a standardised Topic Introduction was read out. FGDs were conducted with the patients in English or in isiZulu. The facilitator posed two questions and then facilitated free-flowing discussion between the participants. The questions were:

- *What are the problems associated with the existing ambulatory medical records system, specifically the use of the general "Outpatient Record" card?*
- *What suggestions do you have that will improve the Ambulatory Medical Records System?*

The FGDs were recorded and later transcribed onto computer and analysed for common themes. The transcriptions were colour-coded and then physically cut and pasted into themes. Four main problems and four main solutions emerged – a manageable way of dealing with and understanding a lot of qualitative information.

Once the results of the research became available, the QA team continued to meet to continue Steps 5 to 6 of the QA Cycle: develop solutions, actions and standards for ambulatory records, and implement and communicate solutions.

Findings

The four main problems to emerge in Step 4 were as follows:

1. Clinical information was tied up in the hospital and was not available to health practitioners in the clinics. Referrals made to the hospital were not replied to and verbal referrals were often made from hospital to clinic. The system did not favour good communication because the hospital used an FHR. A PHC sister summarised: "*The biggest problem is that the left hand does not know what the right hand is doing. We have no idea what happens to patients that are transferred to the hospital, even though the patients are from our area. There is no feedback.*" Patients and staff were concerned that this leads to poor continuity of clinical care between the hospital and the clinics. Within the hospital, patients who came in at night could not access their files.
2. The administration clerks had difficulties with their system: FHRs were filed by a sequential number, written on a small card kept by the patient. If this small card was lost, it was very difficult for the ambulatory file to be found. The clerks wasted a lot of time looking for these files. Ambulatory records were filed separately from the inpatient records and a new inpatient file was opened for each admission. This resulted in poor continuity of care. Valuable information from an admission to the ward was not being transferred to the ambulatory file, which was used for follow up in the outpatient department (OPD) once the patient was discharged.
3. Regarding the design and use of ambulatory records, the facility-held Outpatient Record was never designed as a problem-oriented record. Clinical note-making was not structured. Complaints were made about the illegibility of the doctors' handwriting and the use of unknown abbreviations. The existing PHRs were criticised for being too small, there was no standardised way of adding to the record, there were too many different types of PHR, the record became soiled because plastic covers were not always available, and there were no guidelines for the use of this PHR. The patients were not always happy with the records used by private practitioners. When the records were practice-held, the clinic did not know what the doctor had done. GP PHRs were perceived as being too small, with only a date and a fee recorded.
4. Patients and practitioners were concerned about the loss of PHRs and the lack of a backup record with this type of records system. There was concern about people having several PHRs. This occurred for a number of reasons: People viewed a PHR as belonging to a particular clinic – if a patient went to another clinic, a new record would be asked for. If patients forgot their PHR at home, a new one would be issued free of charge. Patients also asked for new records when coming for STI treatment. Practitioners were concerned whether the PHR would be medico-legally adequate for patients who had been in MVAs, for Workman's Compensation claims or for chronic conditions. They were concerns about confidentiality – whether other people would read the patient's record, especially information relating to HIV/AIDS. Although the research was about the general health record, people were interested in commenting on the special records. It was perceived that the Road to Health Card

(RTHC) and the Antenatal Card were not taken seriously by the GPs and the hospital doctors, as they do not read these or do not write their findings in them.

Table III: Problems identified

- Poor communication of clinical information
- Difficulties in the hospital records system
- Difficulties with design and use of ambulatory records
- Specific difficulties with PHRs

Four main solutions emerged in Step 4:

1. There was overwhelming support for a single PHR that could be used at any health facility or private practice. A patient summarised the situation: "*It is better if we use the same card (PHR), whether going to clinic, hospital, GP or someplace else, because is it easy for that person such as at the clinic to read the history – that maybe you have been from the hospital or the doctor –what was done.*" Another said: "*This common card would be good with short notes in it, so that everyone knows what has been done and the patient's past problems are and one can go straight to the patient's need.*" Some patients felt that they wanted a PHR as well as an FHR kept at the hospital or clinic. This PHR would have a short summary of their condition, so that if they went to another clinic the treatment would be easy to access. PHC practitioners were very concerned that all health practitioners should work together with a good attitude.
2. The administration clerks thought that fewer records would be lost if a PHR system were to be used. There would be more space in the department and they would spend less time retrieving files. With the FHR system, the use of the Date of Birth number would ensure better retrieval than a sequential number – this number would be known by the patient and would remain the same. It would apply to the Inpatient file as well as the Ambulatory Record and the two documents should be filed together.
3. Regarding the design and use of ambulatory records, the use of a Problem List was thought to be helpful, especially if patients saw different doctors. Other ways to improve the records would be through the use of the SOAP (Subjective, Objective, Assessment, Plan) format for note-taking, clear writing of the diagnosis and prescription, and the use of a standardised list of abbreviations. With respect to the existing PHR, there were many suggestions on how to improve the current Outpatient Record or even design a new one. It was felt the PHR should incorporate all records in it and should be designed so that, when full, a new PHR could easily be attached to the old one.
4. Regarding the operational use of PHRs, practitioners commented that widespread patient education was necessary to ensure that they realised the importance of the PHR: "*When the patient is educated that the card is important and if you lose this card you are losing your life – he might be more careful about it.*" If the practitioner is positive about the PHR, so will the patient be. PHRs would be more valued if people paid for it or a replacement. The facilities should not keep issuing PHRs: "*Perhaps for compliance, do not easily give another card when the other card was left at home – it will be too easy to leave at home because they know they can just get another one. Perhaps a little piece of paper or a record that we keep.*" People wanted backup information in case a PHR were to be lost. PHC health practitioners were keen for the doctors to recognise and use the RTHC and the Antenatal Card. For Workman's Compensation , statutory and chronic conditions, patients needed an FHR as well as the PHR.

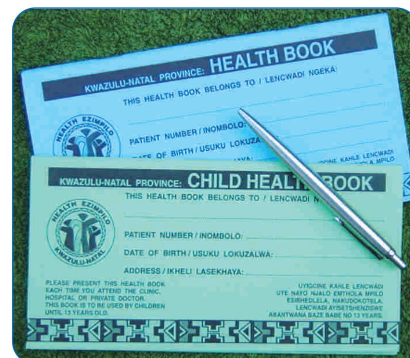
Table IV: Solutions proposed

- A single, common PHR for each patient at District level facility
- Records Department to start using PHR and file by Date of Birth
- Better design and standards for the use of PHRs
- Promote more responsible use of the PHR

In Step 5 of the QA Cycle, a series of meetings involving health practitioners were held to discuss, design and implement the solutions that emerged from the research. The QA team then went on to design three specific systems around the PHR system.

1. Design of a better PHR: The team discussed what the ideal PHR would look like: Size – 10 x 21 cm; at least 32 pages for clinical notes; the name – Health Book (see Figure 3); details in Zulu and English; a Problem List; pages for laboratory and X-ray results; and incorporation of the Health Card for Women, TB Card and Antenatal Card. Two books were eventually designed, one for

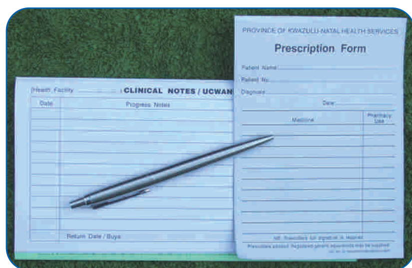
Figure 3: The Health Books



adults and one for children, the latter incorporating the RTHC. The PHRs are to be protected by a plastic cover. These new Health Books were then made and checked with each member of the team for approval.

2. Backup for PHRs: Systems were designed so that some information could be retrieved if a PHR was lost. In the hospital, it was decided that the use of the small, carbonised A6-sized Prescription Form (see Figure 4) would be continued. This is kept in the dispensary as a permanent record of the prescription after the medicine has been dispensed. As the doctor writes the prescription, a carbon copy is left on the PHR, so that PHC practitioners know what was dispensed at the hospital. A FHR as well as a PHR would be used for chronic and statutory patients, but the PHR would be the definitive record. In PHC clinics, information about each consultation is kept in a Daily Clinic Register. A Temporary Consultation Slip was designed – a single slip of paper to be used if the PHR was forgotten to be added to the PHR by the patient on returning home.

Figure 4: The Prescription Form



3. A framework for the monitoring and evaluation of the implementation of the PHR system was designed: A set of norms and standards was developed against which to measure a PHR, some of which were based on the COHSASA (Council for Health Services Accreditation of South Africa) standards.[17]

Discussion

When the records problem was first identified, the tempting solution was to just implement the existing PHR system used at some other district hospitals in KwaZulu-Natal. Instead, by conducting the QA Cycle, the QA team achieved a much better understanding of the issues surrounding ambulatory records and ways of solving their problems. The use of the FGD also proved to be appropriate, as many excellent ideas and concerns emerged from the FGDs. The main problem of poor communication of clinical information is probably the result of the current records system not being set up to facilitate the flow of information from the hospital to the clinics and the GPs. There was a worrying lack of commitment from doctors to reply to referrals from the PHC clinics, although the standards for district hospitals do require this: "Good communication with clinics is demonstrated, including feedback on referrals."[18] This attitude is experienced in many hospitals throughout South Africa, especially where facility-held ambulatory records are used. Hospital doctors often complain that they do not have time to write letters back to the referring health facility. This is a valid perception, although it must be argued that if clinical information about a patient is easily available, the next practitioner can continue where the last left off, instead of restarting the diagnostic process or even readmitting the patient, as sometimes happens. Good continuing care will more than save the time spent writing. There was widespread support for the use of a single, common PHR that is used as the definitive record in an OPD, clinic or private practice.

Since conducting the QA Cycle, the records department has changed over to using the date of birth as the reference number – this has proved to be more efficient.

The problems and solutions pertaining to the use and format of ambulatory records were particularly useful when it came to designing the new PHR, called the Health Book. The current Outpatient Record, designed in 1989, was never intended for the bulk use that it is currently subjected to – it was designed for the occasional consultation. Careful consideration would have to be given to the enrolment of the GP in using the PHR. GPs are often consulted and their diagnoses need to appear in the PHR. This ensures continuity of care and good medical notes are a learning resource for the PHC nurse in a peripheral clinic.

One of the problems particular to PHRs is that proper care is difficult if patients have several records. If a PHR system is properly set up in a district, this is much less of a problem. Also, if patients have to pay for their record, even just a small amount of money, it is better looked after. A positive attitude towards the PHR by the health practitioner encourages the patient to look after it better.

In summary, the QA team worked on the principle of designing solutions to ensure that information was able to flow out of the hospital to peripheral health practitioners. This is in keeping with a principle of the District Health System, which seeks to deliver comprehensive primary health care at community and clinic level. Hospital-based resources need to be harnessed so as to strengthen the delivery of all primary care services.[18] The current facility-held ambulatory records system works against the flow of information to the community.

The findings of the research were presented to the District Manager, who was supportive of the proposals.

A presentation was made to senior management at provincial level and permission was obtained to:

- Design a new PHR, incorporating all ambulatory records
- Change records at the district hospital from an FHR- to a PHR-based system

The next step that the QA team and the managers at provincial level wanted to take was to release much larger numbers of the Health Books for use by the public and health practitioners. This process took place in 2004. Two main questions will be answered by this exercise:

- Firstly, are the Health Books of better design and usefulness than the existing stationery?
- Secondly, will the more widespread use of a PHR (the Health Book) improve continuity of care between health facilities for the patient?

The release of the Health Books falls into Step 6 of the QA Cycle – Implement and Communicate Solutions. After a sufficient number of Health Books has been released and used for a period of time, Steps 7 and 8 will be conducted – Monitor and Evaluate Solutions, thus completing the QA Cycle.

In conclusion, PHRs have a valuable role to play within the District Health System in South Africa. They are especially useful in improving the standard of health care, as well as the continuity of care between the district hospital and the clinics and community health centres that the hospital supports. PHRs form a vital link, not only between facilities, but as a link through time: patients need a definitive personal health record for themselves, a record that is problem-orientated and tracks their health and illnesses throughout life. We need to move away from episodic care. Hospital doctors need to be more seriously committed to communicating with the PHC clinics and private practitioners who refer to that hospital. Senior managers and policy planners need to be more aware of the potential of PHRs as a means of transformation towards a better district health system.

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