

Chapter IV

Women's Health Informatics in the Primary Care Setting

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ABSTRACT

Women's health in primary care is a large part of the generalist's practice. Information technology (IT) is now an integral part of the generalist's office, often more so than in secondary care and therefore this chapter is a key starting point in the book. Initially there is an introduction of the role of IT in primary health and the many areas it may encompass. We then move onto organizing clinical information and the ways that this maybe represented electronically in the "cradle to grave" electronic health record. In addition to recording information, can IT help the primary care doctor? The area of IT in screening, prevention and alerts is discussed. The role of the computer in the clinician's office and the impact it has on the consultation is explored. Can computer help clinicians perform better? Areas of discussion include the role of computers in audit and systems using artificial intelligence to improve patient care. IT is increasingly important in scheduling both within the practice and at the local hospital. This can be done by the primary care doctor and in some instances by the patient his or herself. The ideal situation is the primary care doctor having a system which can "talk" to external systems (e.g. local hospital notes, with a secure portal). In some countries such as the United Kingdom, this is becoming a reality, though there are problems which are discussed.

INTRODUCTION INFORMATION TECHNOLOGY AND THE GENERALIST

The generalist medical function occupies an important role in most models of health service provision. The terminology may vary (Primary Care, Family Medicine General Medical Practice) however there are a number of consistent themes which characterise this role and impact on the information requirements.

1. Generalists have long term, relationships with patients covering the whole spectrum of medical, psychological and social functioning.
2. Successive generalists looking after a patient should inherit the entire existing record and its summary, add to it appropriately and pass it on in a coherent state to the succeeding clinician.
3. Generalists manage many of the day to day issues of patient care in house and refer and accept back patients from episodes of specialist or increasingly multidisciplinary care and need to record these events and their outcomes, both for the coherence of the record and to retain information pertinent to further requests for specialist advice or intervention

Hence clinicians, patients and administrators demand much of our medical record systems.

Different elements of the record (datasets) are required for different clinical situations, such as the recording of allergies, the past obstetric history, the most recent blood pressure measurement. Each element of the history assumes a different importance at different times.

- Some conditions may be recurrent; recording post natal depression in the past may alter and direct the care offered in a further

pregnancy and change the index of suspicion for the obstetrician.

- Some conditions change the subsequent risk profile. Gestational diabetes though resolved postnatally remains a risk factor for Type 2 diabetes in later life.
- Some elements of the record become highly relevant only in very specific situation – a difficult endotracheal intubation has little relevance to a generalists care but is critical information to an anaesthetist. This information may not transfer in a hospital to hospital situation an argument for patient held records in the form of an accessible alert.

Medical decisions are often dependent on observing trends in a specific test or measurement or recognising a constellation of features of the medical history which point to a recognised pathological process. Recording and presenting data to highlight these trends aids correct management of the clinical situation. The maintenance of accurate, comprehensive and up to date records supports this process

Communication with other health care professionals often requires specific datasets of information to be mutually agreed and easily transferred and integrated into the appropriate record. Standardisation of the method of recording, transferring and distribution data is central to the effectiveness of multidisciplinary medical care.

Organised proactive care of patient subgroups in the form of screening, vaccination and analysis of combined risk factors requires a recall or reminder system which has to be updated in real time. Missed recalls need to be recorded and acted on while the patient choice to cease or postpone recall need to be respected. Opportunities to remind patients opportunistically allows further explorations of the patient's choice and the presentation of personalised explanation and encouragement – backed up by specific literature

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