Summary

Introduction:

Computer-based patient records (CPR) can be used to record, rapidly retrieve and analyze practice data. This study demonstrates the usefulness of data recorded and analyzed in my urban family practice, using a self-designed, partial computer-based patient record system - FAMDOC, and also that there is patient acceptance of computer data recording.

Method:

FAMDOC was used to record the VISIT data of all REGULAR patients during the consultations in 1998. REGULAR patients comprised members of a nuclear family who reside within five kilometres of my clinic, having at least one member consulting me during a six month period, for two or more separate episodes of care.

The data recorded during a visit were (a) type of encounter (b) reasons for encounter (RFE) (c) problem definition (PD) (d) disposition (e) drugs prescribed. This data was augmented by FAMILY and PERSONAL data, which had been continuously recorded from 1995 when the practice data was first computerized using FAMDOCs FAMILY and PERSONAL modules.

For purposes of comparison a paper-based record of CASUAL patients' VISIT data from January to June 1998, was later entered into a separate computer database using FAMDOC.

A qualitative survey to determine REGUALR patients' acceptance of computerization, using a semi-structured interview of forty REGULAR patients was carried out in October 1998.

The data analysis was done using FAMDOCs' REPORT module.

Results:

The VISIT module recorded 6228 consultations in which 5213 prescriptions were generated. Data on 1444 patients' families and 3372 individuals were also recorded using the FAMILY and PERSONAL modules respectively. Data on 1772 CASUAL patients' visits were available. The average number of consultations per day was 20(SD 8.6) REGULAR and 16(SD 10.9) CASUAL patients.

Unless specified all data given below are for REGULAR patients.

FAMILY data: There were four members or less in 86% of the families. Seventy five percent lived in a two to three bedroom house.

PERSONAL data: The mean age was 22.6 years (SD 18.9) and females comprised 51.7%. Of 2156 patients over 5 years of age, 13.4% and 25.8% had passed the Ordinary Level and Advanced Level respectively.

VISIT data: Of the 6228 consultations, 4579 (74%) was for a first visit of an episode. Age groups 0-4 year (37.7%) and 5-14 year (30.0%) comprised of 67% and the over 65-year group 3%.

Of the 3372 REGULAR patients, 1749 made at least one visit with a mean visit rate of 3.5 (3.1 SD) visits per patient in 1998. 'Frequent attenders' (patients with seven visits or more) contributed to 14.5% of visits and were positively associated with: the younger age groups, three member families, those at a lower education level and families relatively new to my practice.

Reason For Encounter: RFE rank order according to ICPC chapters were: respiratory (39%), general and unspecific (23%), digestive (12%) skin (6%) and musculoskeletal (6%). RFE according to ICPC rubrics were: cough (20.7%), fever (18.6%), cold & cough (7.3%), cold (3.1%), headache (2.8%), blood pressure check (2.8%), worm treatment request (2.4%).

Problem Definition: PD rank order according to ICPC chapters were: respiratory (48%), general and unspecific (16%), digestive (11%) skin (6%) and musculoskeletal (4%). The most frequent PDs according to the ICPC rubrics were acute bronchitis (14.2%), upper respiratory tract infection (13.6%), viral fever (8.7%), cough (5.2%), gastroenteritis (3.7%) and asthma (3.2%).

Drugs: The mean number of drugs prescribed for a REGULAR patient was 3.3(SD 1.2). The most frequently prescribed five drugs were paracetamol (17%), chlorpheniramine expectorant (11%), amoxycillin (10%), salbutamol (9%) and vitamin B complex (5%). The mean number of drugs prescribed for a CASUAL patient(s) was 4.5 (SD 1.4).

Disposition: REGULAR patients had more planned return appointments (16.6%) than the CASUALS (1.2%).

Referral rate: CASUAL patients had about double the referral rate (3.7% to 1.7%) and hospital admissions (1.6% to 0.08%).

Patient acceptance of FAMDOC: The vast majority of patients (over 90%) had no reservations about their family doctor using a computer during the consultation and confidentiality of data was not an issue.

Discussion:

The study also shows that my practice is representative of family practice in Sri Lanka since my practice profile, consulting age groups, rank order of RFE and PD are very similar to the data obtained from the 1996 one day GP morbidity study. However when compared to the 1990 Australian morbidity study there were differences in consulting age groups, rank order of RFE and PD. This shows that interpolation of morbidity data from developed countries may not be suitable for health care planning and medical teaching in Sri Lanka.

A program should be initiated to publicize, provide training and implement the use of computer-based patient record systems at a nominal cost for general practitioners in Sri Lanka. This could be tied up with incentives such as CME credits and subsidies. Morbidity data can be collected from several family practices using FAMDOC in order to generalize the findings. The data from these computerized practices could be easily pooled to from a dynamic database, which can be used to design family practice teaching curricula and also plan primary care health services for Sri Lanka.