380* Clinical management system for cystic fibrosis

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Introduction: The aim of this project was to develop a cystic fibrosis (CF) clinical management system which would be simple to use, improve data collection, generate electronic patient records and automate clinic and discharge letters. The system had to be compatible with the hospital pathology link and the UK National Programme for IT.
Method: After reviewing available software, we chose the Egton Medical Information Systems (EMIS) Primary Care System (PCS) as the most suitable solution for our needs. This decision was based on functionality, its well established pedigree in primary care, ability to easily modify templates and codes. The system was modified for secondary care use, templates generated and codes developed to cover all aspects of CF management.
Result: The system was launched in the Paediatric unit in 2006. Clinics are now run using PCS with pathology results being downloaded electronically to patient records. Data is entered using simple templates which are coded and quick to use. Letters are generated by automatically merging data fields into a word document. Clinical and non clinical parameters can be seen on a summary screen with the last result being shown. Longitudinal data can be represented either graphically or as a list. Other features include electronic prescribing, automated drug interaction and patient tasks/alerts. We plan to introduce PCS to the adult CF unit, trial hand held devices and upgrade to the new web base version of PCS.
Conclusion: The modified PCS has been successfully integrated into our unit and is now used by the multidisciplinary team for the day to day management of patients with CF. PCS has proved very versatile and because modifications in templates and codes can be carried out in minutes, the system has a bright future.

381 Impact of practice guidelines on the activity of cystic fibrosis centres

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The 2002 French cystic fibrosis (CF) guidelines state that each patient should be followed up at least every 3 months at CF reference centre.
Our aim was to investigate the impact of these guidelines on the activity at 4 regional reference centres.
All patients with CF attending one of the four CF centres between 1996 and 2005 were retrospectively included. The total number of visits was recorded for each month of the study period. To estimate the impact of the guidelines on the number of visits, forecasts based on 1996–2002 data were established (Holt-Winters method) for the years 2003 to 2005 and then compared to the observed number (paired t-test).
A total of 18,514 visits took place between 1996 and 2005. The annual number rised from 1,059 to 2,567. Each year, the lowest activity was seen in July and August (French school holidays). The monthly average number of visits was 88 in 1996 and 214 in 2005 ($p < 0.0001$). This rise was explained by a growth in both the number of patients followed up (288 to 518) and in the average annual number of visits per patient (3.7 to 5.0, $p < 0.0001$). The number of visits predicted by the model was not significantly different from the real figures, indicating that the activity trend was not modified after publication of the guidelines.
Though the number of visits increased regularly, the guidelines do not seem to have impacted this phenomenon: when the guidelines were published, clinicians were already convinced by the need closer follow-up and had begun to increase the rate of visits.
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382* Introduction & evaluation of a pharmacist-run medication review for cystic fibrosis patients

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Aim: To evaluate the impact of a pharmacist-run medication review, as part of the annual review process for cystic fibrosis (CF) patients.
Method: All CF patients attending Llandough Hospital CF Centre for annual review between December 2005 and April 2006 were seen by the pharmacist for a medication review. Information recorded during the consultation included a full medication history, compliance and supply issues. A full medication list and any interventions were given to the CF consultant. All pharmacist interventions were recorded. A group of CF healthcare professionals were asked to categorise each type of intervention according to its significance.
Results: A total of 40 patients were seen. A total of 190 interventions were made with an average of 4.75 per patient (range 1–9). Of these, 168 were able to be categorised. All 168 interventions were classed as clinically significant as follows: extremely significant (3), very significant (55) or significant (110). Of the 190 interventions, 9% were made using the patient alone, 23% with the notes alone and 68% using the patient and their notes.
Conclusion: This study demonstrated the benefit of a pharmacist-run medication review for CF patients. All interventions made by the pharmacist and classified by the CF multidisciplinary team were clinically significant (defined as those which 'would bring patient care to a more acceptable, appropriate level'). Having a specialist pharmacist undertake medication reviews for CF patients has therefore led to improved patient care. At least one intervention was made for every patient, demonstrating the need for a pharmacist to see all patients. The majority of the interventions needed both the notes and the patient, indicating that a patient consultation is necessary.

383 Use of non-prescribed drugs in adult CF patients

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Drug abuse is common in young adults, and some workers have suggested that up to 60% of CF individuals may have been exposed to marijuana and 12% to tobacco. To look at this further, we surveyed a random sample of 57 (of 230) adult CF patients attending our regional unit and asked them to complete an anonymous survey about their experience with non-prescribed substances. Four patients declined the offer: the remaining 53 questionnaires (age ranges: 17 to 19, 15 patients; 20 to 22, 9; 23 to 25, 14; >25, 15), 26 female) were analysed. As regards alcohol, only 3 (5%) were teetotal. Of the remainder, 11 patients consumed at least 10 units per week. Only 5 patients (9%) smoked tobacco, but only 1 on a daily basis.
Six (11%) used cannabis, but a further 21 were exposed to it (12 via friends, 5 siblings, 2 colleagues, 2 partners).
Three (8%) used cocaine and a further 10 were exposed (9 via friends, 1 via partner). One patient used stimulants and sedatives at least once a year, opiates and ecstasy at least once a month and cocaine weekly. Five other patients used opiates at least once a year due to peer group pressure. A further patient used hallucinogens following sibling pressure. No patients admitted to using heroin or tranquilisers, but only 1 patient had peer pressure for the former.
At the other end of the spectrum, 25 patients did not take either tea or coffee, and 8 took neither.
Thus, we have shown that 14 (26%) of this random sample use illicit drugs. CF clinicians need to be aware that a significant proportion of their adult patients may use such drugs and this can contribute to their disease.