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Integrated care

Systems of care and standards of practice were the main themes of the 32nd European Symposium on Clinical Pharmacy (ESCP) held in Valencia from 29 October to 1 November. Christine Clark reports

Patients want physicians on tap, not on top, according to Professor BRIAN ISETTS, associate professor, department of pharmaceutical care and health systems, Peters Institute of Pharmaceutical Care, University of Minnesota. One of the guiding principles of integrated care is taking patients' preferences into account when setting goals of therapy. This involves shifting from a hierarchical model of care, where the physician is in charge, to a "guiding" model of care, in which health care professionals work in partnership with patients, he explained.

Systems of integrated care involve a proactive approach, are quality conscious, cost-effective and patient-friendly, said Professor Isetts. They set out to maintain "wellness", to prevent and treat ill health in a community, are based upon public education and participation and are facilitated by information networks and management systems. One of the cornerstones of integrated care is collaborative drug therapy management in which drug therapy decisions are made jointly by physicians, pharmacists and other health care professionals together with the patient.

There are links between pharmaceutical care and integrated care but integrated care takes a much broader, holistic approach, he explained (see Table 1).

The number one element of a successful integrated care programme is the existence of a common patient care process that is recognised by everyone. For pharmacists this involves establishing a therapeutic relationship, checking medication, identification and resolution of drug-related problems and on-going monitoring of drug treatment. Like the medical examination and history-taking process, this is something that should be recognised worldwide, he said. Integrated care should be patient-centred. In his experience this was particularly well received by patients who often returned saying that no one had ever asked what they wanted before. It should also be possible to describe the service concisely without denigrating the contributions made by other health care professions. Pharmacists should assume responsibility for all the drug-related needs of a patient. Although many services had started by focusing on specific aspects such as asthma treatment or diabetes treatment, pharmacists must now find time to fill in the gaps he suggested. Finally there must be effective management systems – and this should not be an afterthought, he emphasised. A successful programme needs mechanisms to communicate with primary care providers, marketing plans, practice plans and arrangements for payment.

Brian Isetts: integrated care provides collaborative drug therapy management with patients

A key aspect of integration of pharmacy services is selling the service to physicians. "Give them the evidence and then appeal to their emotions," recommended Professor Isetts. In the Minnesota project pharmacists had set up their own consulting areas but six months into the project physicians had invited the pharmacists to work alongside them in their clinics. Feedback to improve services and ensuring continuity of care between hospital and community settings were also essential elements of the service, he added. Over-specialisation in a single disease or drug and lack of input from patients and providers were two factors that could impede successful integration of pharmacy services. Unrealistic expectations and ineffective communications were also potential barriers.

A guiding principle of integrated care was greater control of health care decisions by patients. "If I listen to a patient's most important concern and tackle it, I will establish a relationship for life," said Professor Isetts.

Turning to the outcomes of pharmaceutical care, he described how a method developed by the Rand Corporation had been applied to assess the quality of therapeutic determinations made by pharmacists. The results had shown that physicians agreed with 94 per cent of all the decisions made by pharmacists. Furthermore, pharmaceutical care had resulted in goals of therapy being achieved 15-20 per cent more often. The Minnesota project database now holds records of more than 60,000 encounters.

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Table 1: Connections between integrated care and pharmaceutical care

Integrated care	Pharmaceutical care
Education and participation	Patient-centred philosophy
Maintain wellness	Drug-related morbidity and mortality
Prevent and treat ill health	Identify and resolve drug therapy problems
Proactive approach to care	Systematic patient care process
Patient friendly	Therapeutic relationship
Quality	Practitioner responsibilities
Cost-effective	Resource based relative value scale
Information networks	Practice management systems

Steve Hudson: services should be horizontally integrated in order to follow the patient's journey

These showed that each patient had on average 2.3 drug therapy problems and the three most common problems were a need for additional drug treatment, a dosage that was too low and non-compliance. Quality of life evaluations had also shown improvements in all domains when pharmaceutical care was provided. Moreover, pharmaceutical care was consistently associated with improved benefit-to-cost ratios in heath care, said Professor Isetts. One project concerned with diabetes mellitus had shown that the number of sick days taken by employees had fallen by 50 per cent and for every dollar spent on the service by the employer, a saving of two dollars had been made.

Recent developments in the USA mean that pharmacists have now been officially recognised as health care providers in the Medicare programme and pharmacy services now have a code for billing (without such a code services cannot be reimbursed through Medicare.) A scale of payments has been devised to reflect the greater workloads generated by patients with complex medical problems and multiple drug treatments.

Integration of pharmacy services would almost certainly lead to greater demand for pharmaceutical services concluded Professor Isetts.

Educating pharmacists for their new role in the health care team is linked to the redesign of services around the patient's journey, said Professor STEVE HUDSON, professor of pharmaceutical care, University of Strathclyde. One of the obvious problems with the vertical delivery of services is that one cannot be certain that the patients who need to see a pharmacist actually receive pharmaceutical services. Services need to be integrated horizontally at all stages in order to follow the patient's journey, he explained. For pharmacy this means developing a service based on an individual assessment of each patient, delivered by teams of pharmacists and technicians. Such a service uses patients' own medicines, provides more intensive monitoring to patients with greater needs and follows through into the discharge planning process and transfer of care.

One example of an integrated care initiative had arisen from a study of 500 patients with type 2 diabetes mellitus. The study had assessed adherence to treatment guidelines for secondary prevention of coronary heart disease, according to a set of agreed criteria. The researchers had expected a high level of adherence but had been surprised to find an overall level of 59 per cent. Aspirin was only prescribed for 77 per cent of eligible patients, and although a statin had been prescribed for 85 per cent of patients it was only given in an effective dose for 70 per cent of the sample. Less than 50 per cent of the sample was receiving glyceryl trinitrate, an angiotensin converting enzyme inhibitor or effective anti-hypertensive treatment. These results had stimulated the development of a research project, involving three pharmacies and two family doctor teams, to examine the impact of pharmaceutical care (delivered in community pharmacies) on adherence to treatment guidelines for secondary prevention of coronary heart disease. A group of 345 patients with coronary heart disease have now been randomised to a control group and an intervention group. Analysis of the results is now under way. Whatever the outcome, a valuable side-effect will be that pharmacists and doctors have learned to work together, said Professor Hudson.

In the discussion that followed, one member of the audience from The Netherlands suggested that pharmaceutical care could be a marketing tool for chain pharmacies – an example of this approach has already been seen in the Netherlands.

HELENA DUARTE pointed out that, in Portugal, pharmaceutical care delivered by community pharmacists is now paid for — 75 per cent from the health service and 25 per cent from the patient. This was a victory for pharmacy owners because it had originally been opposed by patient organisations, she said. Pharmacists were now wondering how a similar agreement could be secured for hospital pharmacists.

BETHAN GEORGE, academic department of pharmacy, Barts and the London NHS Trust, asked how pharmacists could be trained to embrace the concept of responsibility for the outcomes of treatment.

Professor ISETTS said that it was necessary to attract students with the right qualities in the first place. A newly qualified pharmacist in the USA can earn $90,000 per annum, and as more health services start to demand pharmaceutical care it was unlikely that they would continue to pay at this level for dispensing services alone. Pharmacists must get ready for this role, he warned.

DENISE TAYLOR (University of Bath, UK) said that at the University of Bath students participate in multidisciplinary case-based teaching. They relish the opportunity to work with other professions in this way. If this type of training is left until after registration then attitudes to other professions are already entrenched, she said.

Professor HUDSON added that the majority of pharmacists in Scotland were to undergo training as supplementary prescribers and this would go hand in hand with a sense of responsibility.

Professor ISETTS envisaged a scenario in future in which a patient would attend a university clinic and be seen by a mixed group of students, who would learn to appreciate each other's roles and expertise. The students would then receive feedback on their performance from the patient.

Practice guidelines

The development of clinical practice guidelines (CPGs) could take between nine months and two years, said Dr MARTA AYMERICH, Catalan Agency for Health Technology Assessment and Research, Spain. Clinical practice guidelines had been defined by the US Institute of Medicine as, "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical conditions". One question that is often asked is whether CPGs should be newly-developed or could be adapted from existing guidelines, she said. In practice, once the area under consideration has been precisely delimited, existing guidelines are always considered, if they are of sufficient quality. The best database for CPGs is the National Guideline Clearinghouse (**www.guideline.gov**) because strict methodological criteria are used to allow entry to this database, she explained. The guidelines are then compared for content, target population and interventions and updated if necessary. After review, piloting and testing, the final version is ready for dissemination and implementation. It is important to know if a CPG has contributed to the achievement of higher standards of care, said Dr Aymerich. For this it is necessary to monitor clinical practice and health outcomes and to choose outcomes that are both evidence-based and linked to the intervention under evaluation.

Posters

Once-daily netilmicin 6mg/kg has been compared with the previous standard regimen of 3mg/kg three times a day for the treatment of febrile neutropenia by TONY NUNN (director of pharmacy, Royal Liverpool Children's NHS Trust) and colleagues. The main outcome

measures were the presence of pyrexia 72 hours after admission, nephrotoxicity, symptomatic ototoxicity and netilmicin levels. 280 patient episodes with the once-daily regimen were compared with 180 episodes using the previous regimen. The results showed that there were no differences in therapeutic outcomes but that the once-daily regimen offered "real advantages to children in terms of the practicalities of administering injections" said Mr Nunn.

British presenters were strongly represented in the education and training area with several posters describing different topics. LYNNE BOLLINGTON, winner of the 2003 UKCPA-Wyeth education and training award presented a poster of the award-winning project (full paper published in this issue of *Hospital Pharmacist* p491). Ms Bollington, who is All Wales principal pharmacist, education, training and personal development, described the development of a peer support strategy for clinical pharmacists. Twenty-six pharmacists had taken part in the project and the results showed that the scheme was enjoyable and had met their expectations.

ANDRZEJ KOSTRZEWSKI and Dr SORAYA DHILLON described a study that had investigated the use of reflective diaries by pharmacists over a three-year period. The work was undertaken because National Health Service guidance on continuing professional development recommends reflective practice as an element of work-based learning. The researchers found considerable variation in the material analyses and few participants had described what future action would be taken as a result of an event. They concluded that pharmacists had difficulty in writing reflective accounts and that this might indicate a limited ability to reflect in and on practice.

Lynne Bollington: a peer support strategy for clinical pharmacists is enjoyable and met expectations

The development of an interprofessional learning programme involving students of medicine, nursing and pharmacy was described by DENISE TAYLOR and colleagues. In a pilot study small groups of students from each discipline had been asked to work up enquiry-based clinical case studies, identifying key professional roles and preparing a patient care plan. Students assessed the learning event by rating a series of domains and participating in a debriefing session. The project was judged to be successful and interdisciplinary teaching sessions have now been formally incorporated into the curriculum in the speciality of care of the elderly.