

# How hospital trusts are creating capacity to tackle medicines management

To achieve a satisfactory system of medicines management, a fundamental organisational requirement is the creation of capacity and the potential for change to deliver the huge agenda that exists, says chief pharmacist **David Campbell**. In this article, he gives examples from Northumbria

**A**cute trusts face a large, diverse and growing number of issues relating to medicines management. These are clinical, financial, legal, environmental, technological and political. Current priorities include access, equity, financial control and satisfying the requirements of regulators as well as the National Patient Safety Agency and the National Institute for Health and Clinical Excellence, while also meeting the expectations of staff, governors (where relevant) and customers (ie, GPs, commissioners and patients). Patient safety, however, is likely to be one of the highest priorities for most trusts.

## Change

All evidence points to the fact that risk is greatest at the prescribing and administration stages of the medicines management process and, consequently, the enduring challenge to achieving safe and effective medication practice typically exists outside pharmacy and this is where most efforts, such as improving training and competency assessment of nurses and doctors, need to be directed.

Those who have dual responsibility for pharmacy and medicines management are often expected to find the resources necessary from within pharmacy to deliver relevant actions. This article describes some of the changes that can liberate capacity and maximise the potential to deliver the emerging medicines management agenda, with a few examples of what Northumbria Healthcare NHS Foundation Trust has done over the past three or four years to meet the challenges. Many of these changes have been implemented elsewhere in the UK with varying degrees of success.

## Defining and delivering core business

Although counter to the desire of foundation trusts to generate income, it may be sensible to terminate contracts requiring services to be provided to other organisations (eg, the supply of medicines to local prisons). This reduces the number of distractions incurred during the working day, meaning that services can be delivered according to the needs of trust patients and wards, and not compromised by arrangements to meet the requirements of other organisations.

Furthermore, judicious use of third parties to deliver non-core clinical services can release capacity and help focus on the issues of greatest importance to the medicines management agenda. Routine hospital outpatient

dispensing and ward stock top-up, particularly at locations distant from hospital dispensing services, are two such functions.

**Economies of scale** Many acute trusts are large, as the result of the merging of several smaller organisations. It may, therefore, be possible to liberate capacity through centralisation. An example of this in Northumbria is the centralisation of three aseptic units onto one site in 2006.<sup>1</sup> There are many reasons why centralisation may not be possible but despite significant geographical barriers in Northumbria it was achieved without any real difficulty. It should be possible to achieve similar benefits with other operational services, such as stores and distribution. Barriers may exist, but often these are perceptual.

Concern about staff reaction to change is understandable and may cause some to hesitate. However, most operational services can be centralised by adopting different working practices and with careful management (eg, consultation and good communication) through any change process.

Centralisation should not be limited to routine operational services and Northumbria is currently consulting with relevant staff on a proposal to change to a trust-wide rather than a site-based out-of-hours service. The gain would involve a reduction in time lost (as lieu time) by aggregating calls to one, instead of three, pharmacists on-call.

**Process redesign** One-stop dispensing undoubtedly releases capacity by cutting out unnecessary transactions in the supply of drugs during the inpatient journey. Some trusts have reported an increase in waste with the introduction of this process but in Northumbria this has been kept to a low level and the benefits have been substantial. Moreover, one-stop dispensing has shifted a great deal of pharmaceutical input closer to patients, which has led to many other advantages.

Linked to this development is the opportunity to encourage patients to bring their own medicines into hospital and to use them from individualised bedside lockers throughout their stay. In Northumbria, during December 2007, it was identified that 56 per cent of patients brought all their own medicines into hospital compared with 38 per cent in October 2006 (unpublished audit data). This improvement has been achieved through significant effort from managers and is now



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becoming the norm. Not only has this led to a significant reduction in the number of transactions that pharmacy and ward teams have to process but it also has led to a reduction in risk because drug history taking and medicines reconciliation is far easier.

The use of patient group directions (PGDs) is associated with many advantages, such as making medicines that are otherwise difficult to supply without pharmacist involvement available at distant community hospitals. PGDs can also facilitate the timely supply of individual patient items produced in bulk as over-labelled drugs (OLDs — manufacturers' original patient-packs, which are labelled with standard directions that can be supplied to patients, typically by nurses, after adding the detail of the patient's name and the date to the label). The use of PGDs in this way consumes far less clinical and technical resource in aggregate than that which would be consumed by many individual patient dispensing transactions. In Northumbria we now have 204 approved PGDs and this system now represents an alternative and cost effective way of providing medicines.

Probably the most significant capacity releasing process change used in Northumbria was that associated with the widespread use of OLDs to fulfil supplies at ward level. When a range of OLDs was first introduced in 2004, one dispensary saw a 35 per cent reduction in workload (unpublished audit data). As with many of the changes described above, freeing staff from the pharmacy department means their time can be redirected to wards where

they add real value to the medicines management process. Staff are now in a better position to recognise and meet the needs of patients, provide a more responsive service, support the rest of the healthcare team with technical and clinical advice, undertake new roles within this team and actively manage risk.

**Technological solutions** It is clear that the deployment of robotic technology may offer a significant opportunity to re-engineer processes and, in so doing, liberate staff time. However, the biggest single investment to aid the delivery of good medicines management should come from the implementation of an effective electronic prescribing and medicines administration system. Although creating its own problems and risks, any closed e-prescribing solution would help prescribers and those administering medicines to get it right, first time and every time. The capacity created throughout the hospital would be significant, not least in pharmacy, where the need for a sizeable number of corrective interventions (eg, making prescriptions legible, amending doses and flagging up drug interactions) would be eradicated. This would, undoubtedly, release some of the clinical and technical time necessary to support the maintenance and development of the system.

The delivery of adequate medicines management training for several thousand staff is a real challenge. Like other parts of the UK, Northumbria has developed an on-line e-learning programme for all staff who work with medicines. This, along with a video used at staff induction, has substantially reduced the training burden on the trust.

**Skill mix and staff management** A substantial shift in staff responsibility within NHS trusts has occurred as pharmacy services have migrated towards a continuously increasing clinical orientation. Pharmacy technical staff have taken on responsibilities that were previously done by other members of the healthcare team. They now have roles at ward level (eg, drug history taking and patient counselling), in clinics (eg, anticoagulant management) and in the pharmacy department (eg, accredited checking and pharmacy management). Boundaries continue to be challenged and new ideas emerge. In Northumbria, we plan to investigate the feasibility of pharmacy technicians performing targeted clinical validation at ward level (a limited clinical review typically undertaken by pharmacists) to see if and how this could fit into our model of care. Others across the UK are considering who should do a second check when drugs have been prescribed by a pharmacist and they may come up with similar ideas.

Changes to skill mix are often developmental in nature and motivational both for the individual with a new responsibility and for the person who can stop doing things that distract him or her from doing the things to which he or she adds greatest value. This, in

turn, can impact on the consistency and level of performance of staff involved. The opposite can be true for change that is not understood or is not welcomed by staff — hence the need for considered and careful management.

Employing staff with a different background to those traditionally employed in pharmacy creates a different kind of capacity and potential. As well as allowing people to concentrate on what they do best, it can create new opportunities and open doors to deliver changes that may have otherwise not been possible or imagined. For example, the employment of a nurse within pharmacy to lead on issues such as the self administration of medicines, patient involvement and nurse education can be invaluable. The experience of having a nurse directly employed by pharmacy in Northumbria has been positive; success has, in part, been due to her having a different approach and attitude to change, a better understanding of nursing issues relating to ward processes and access to an alternative network of individuals and change facilitators.

In the running of a large service there are regular opportunities to create more capacity by reorganising structures and staff roles, either opportunistically when someone leaves or as part of a planned major change process. In Northumbria, in 2006, following a significant senior team reorganisation it was possible to reduce management costs massively and redirect liberated capacity to the clinical environment. The full capacity benefit was a culmination of many things described in this article.

There is much to be gained in terms of getting the most out of the available human resource within organisations by creating job plans and actively supporting or managing staff's development and performance.

As part of Northumbria's development strategy, a significant quantity of the capacity and resource that has been liberated has gone into the creation of pharmacist prescribing roles, in areas like emergency care and rheumatology, and also the development of a consultant pharmacist post in cancer. All such posts now make a substantial contribution to improving the ways that medicines are managed in the teams that they work.

**Collaboration** Across the North of Tyne area (Northumberland, North Tyneside and Newcastle) an area prescribing committee was formed in 2006 to make decisions about drug choice on behalf of six different organisations (an acute trust, a mental health trust, a tertiary organisation and three primary care trusts). This was formed for a number of reasons but, most notably to ensure equity of access to new drugs and consistency in decision-making, and to avoid duplication of effort. A North East SHA-wide decision-making group is now being developed, based on similar principles, initially to look at specialist drugs and technologies only. It may be possible to get formulary and medicines information pharmacists across the region to work more closely together and by doing so releas-

ing time to do other value adding clinical activities. Being pragmatic and willing to accept the decisions of others would be key to getting the most out of these arrangements. Having greater joined-up working and decision-making across primary and secondary care boundaries should also present a great opportunity for further economy of scale.

Creating capacity to deliver against key medicines management activities, such as audit and research, can be achieved by developing a symbiotic relationship with local academic institutions. Most of this can be at zero cost involving honorary contracts for academic staff to work in trusts and the opportunity to have field research undertaken by students from universities within the hospital.

**Awareness and ownership** The most effective organisations are likely to be those that have successfully made medicines management everyone's business. Organisations that see medicines management as pharmacy's sole responsibility will fall short in delivering all that is required or possible.

Teaching, training, awareness raising and marketing are all important tools in helping to achieve this goal. Getting individuals to realise that there is a risk in the first place can be a real challenge. Once that is achieved, getting them to recognise and accept that they have personal responsibility is key to moving forward.

Nationally derived medicines related targets (from NICE, the NPSA or the Healthcare Commission) will have helped those who have struggled to get the organisational attention they need in order to make necessary change happen. The governance arrangements of individual organisations are also an ideal conduit through which to raise and keep medicines management on the agenda. Continuous monitoring and reporting of risks through audit, routine ward-based risk assessments, performance against key indicators, intervention reports and incidents are all important to this process. Furthermore, integrating individuals who champion medicines management issues irrespective of their background at clinical directorate or business unit/divisional level helps significantly.

## Conclusion

I hope this article will help stimulate debate about what can be done as part of enabling the medicines management agenda to be delivered. In Northumbria, medicines management has become an embedded process and is one of the top safety priorities for each of the business units in the trust to tackle next year. Medicines management has started to become everyone's business. The challenge will be to keep it that way.

## References

1. Williamson S, Campbell D. Creating capacity for cytotoxic preparation through centralisation at Northumbria Healthcare NHS Trust. *Pharmacy Management* 2006;22:16–21.