

Unit Dose Dispensing - Less is more

Latest Thinking



The NHS is reported to be continuing to waste over £300m per year on partially used prescription drugs since recognition of the opportunity for stemming this outflow was made in 2007. One early practical reaction to this problem came from the Nursing Professions who suggested labelling medicines with their cost as well as handing out leaflets to patients about not getting repeat prescriptions unless the drugs were still needed. Quite who was going to make that clinical judgemental call was unclear. Nurses also suggested unused medicines that are returned to pharmacies could be repackaged and made available again – currently any returned drugs have to be disposed of for reasons of safety and quality.

Despite widespread recognition of the issues, problems associated with drug related wastage are ongoing, however, a key and repeating message is for clinicians to regularly review the medicines patients are prescribed. GPs and Hospital colleagues discussed drug wastage in NW London last month and their experiences echoed those reported in 2007, with patients being admitted carrying bags full of drugs that were either historic

and no longer necessary, necessary but unused by patient choice, or which were in conflict with up to date diagnoses and treatment plans. As well as being related to patients getting repeat prescriptions when they do not need them, medicines wastage and hospital admission is also caused by people not taking their drugs as they should.

Colleagues recognised that patient - behaviour was leading to a large number of emergency admissions. Medication contributes to 5 – 8 per cent of hospital admission and readmissions, of which almost half (approximately 4 percent) are preventable. A 2010 report from the Department of Health estimates that wasted medicines cost the NHS £150m each year with poor adherence to medicines contributing a significant amount to both waste and suboptimal benefit from medicines. Despite a growing understanding of the issues, the opportunity for improvement remains almost as it did in 2010, flying in the face of the increasing desire to balance the benefits from funding new drugs with available cash. The value of having specialist pharmacists located inside primary and community care settings is now being recognised and NHS England has launched an innovation programmes to support drug review in primary care although the funding to sustain project managing to secure acorn funding, must come from providers and commissioners for whom finance is increasingly stretched.

And yet everyone understands that in an era where the NHS is being asked to save money, tackling this issue could be a "really quick win", freeing up resources to tackle front line care. As well as being a primary care problem, the levels of wastage and the opportunity for efficiency also lies within secondary care settings.

Unit Dose Dispensing - Less is more

Latest Thinking

Improving medication adherence address two of the four key areas of established QIPP thinking including lack of efficacy. There are allied agendas. The long term conditions agenda is also of key concern, accounting for around 70 per cent of NHS spend. With the rise of evidence based medicine, patients with complex conditions represent a medication and cost pressure. Patients with complex and long term conditions represent high level acuity within secondary care settings.

NICE guidance around supporting medication adherence described “the need for improved medicine-related communication with patients, the value of patient involvement and the patient perspective in decisions about medicines taking and the importance of communication between health professionals about agreed decisions relating to medicines”. Colleagues recognise the valuable role of drug passports and similar devices to form an information bridge for patients being admitted or being discharged. But they are only as valid and the up to date information they provide. Prescriptions drugs are often provided in volumes for the most complexly ill. Making changes to their prescriptions, although clinically positive, requires the remaining drugs to be discarded.

Some individual work to reduce drug wastage inside hospitals include a project undertaken within Chester NHS Foundation Trust CICU (Cardiac Intensive Care Unit) in response to part used drug issues. Solutions considered included a review of drug usage and storage. Stock levels were reduced to a safe minimum safe amount by drug line. Drugs were moved to a secure refrigerated cabinet with capacity to hold one tray per patient, making

storage patient specific also improving safety at the time of issue. Over stocking was managed in this way, reducing loss through expired medicines. Initial savings reached £15,000 on drugs on one unit in one Trust as a result of a simple change in the way in which drugs are stored.

The opportunity for efficiency is larger than one proactive CICU. Should we fast-forward to a solution to drug storage and patient level issue that could be introduced to all NHS Trusts, we should consider establishing single or unit dose prescribing and issue. This practice is common place in USA and has been implemented to some degree in other EU countries where it has relied upon local modification of blister packs. The larger NHS Trusts in London attended a discussion about pharmacy related problems during September 2015 and I asked why they hadn't adapted the use of their established pharmacy robots to unit dose issue. Trusts clearly recognised the need to make savings and support positive changes to clinical safety. The Head of Pharmacy of the largest Trust present explained that she had seen the concept in action in Spain and wondered why drug companies hadn't changed packaging to make the process change straight forward. Furthermore, in the past she hadn't planned to support or to see such a change at her Trust “in her lifetime” but that she ‘totally got it ‘now.

The opportunity to move speedily towards single unit dosing relies upon either drug companies packaging in order to support single unit dosing, or Trusts mobilising a package – altering process safeguarded by bar coding and checking, as they do in Spain.

Many NHS Trusts use pharmacy robots to manage stock and to dispense. Could existing pharmacy robots cope with storing and issuing single units?

Unit Dose Dispensing - Less is more

Latest Thinking

Leading suppliers of pharmacy automation equipment already have the software and systems in place to support unit dose dispensing. Integrated strategies could be developed to streamline management of the supply chain right from the point of order to administration to the patient, eliminating waste and reducing costs.

Storage and dispensing options include smaller units to be located discretely for instance inside CICU. The larger units currently located across the UK are also adaptable.

None of this is rocket science. In the States manufacturers are following the driver to make efficiencies, too but they appear to be ahead of the game in terms with negotiating packaging changes with manufacturers. USA Procurement additionally has a new edge. A growing number of drug manufacturers now price there by unit regardless of the container size. That removes the financial incentive to buy multidose containers but charge for single-use containers. Per-unit pricing also lets manufacturers increase prices by expanding the highest-cost single-use container price across an entire product line but prevents global price uplifting across multi price lines. An astonishing impact of the change to single unit dosing took place in 2007 when providers grouped together stopped paying for unused, or wasted, drugs and biologics in multidose containers but continues to pay for drug wastage in single-dose containers.

Unit-dose dispensing of medication was developed in the USA as far back as the 1960s to support nurses in medication administration and reduce the waste of increasingly expensive medications. Most

of the investigations of medication errors and unit-dose dispensing took place from 1970 to 1976. Now, with the risk mitigated through testing and practice, unit-dose dispensing of medications is a standard of practice at hospitals in the United States.

In unit-dose dispensing, medication is dispensed in a package that is ready to administer to the patient. It can be used for medications administered by any route, but oral, parenteral, and respiratory routes are especially common. When unit-dose dispensing first began, hospital pharmacies equipped themselves with machines that packaged and labelled tablets and capsules, one pill per package. They also purchased equipment for packaging liquids in unit-doses. As the popularity of this packaging increased, the pharmaceutical industry began pre-packaging pills in unit-of-use form.

Should this change arrive in the UK, the benefits would follow. Many Trusts already have an automated drug storage and dispensing facility aiding mobilisation of the change to single unit dosing. One finding of the USA research was automated storage and dispensing removed the risks and costs associated with administration of multiple silo drug storage and issue points within a Trust.

The NHS should consider requiring suppliers to package drugs according to our future plans.

Unit Dose Dispensing - Less is more

Latest Thinking

About the Author

Kate Schroder, MBE is an experienced CEO and Director with technical ability across Finance, Bidding, Contracting, Commissioning, Clinical Ops Mgmt, Campaigning, with national awards for Turnaround and organisational development in the Health sector (winner CIPFA and Cabinet Office Turnaround Manager award 2009, Kings Fund Innovation award 2009/10, health sector Campaigner award 2010, MBE for services to Ophthalmology 2009). Commissioning portfolio of responsibility up to £1.6billion, also devising, modelling and implementing QIPP and CIP in Trusts and community, many integrated forms of delivery with acclaimed - evidenced success of a steady £50k per day. Producing NHS Turnaround manual for use in CCGs during Dec 2016 - May 2017 on behalf of NHS England- manual and first volume of clinical cases launched in May 2017, second volume of clinical cases published in late 2017. Board Trustee of FirstLight, an organisation with charitable status supporting Veterans from emergency services and the armed forces NED, Concordia & National Outpatients, UK



About Linea

Linea is a results focused Organisational Excellence consultancy with a track record of delivering sustained superior performance that meets and where possible exceeds client expectations.

We combine the credentials of a top tier firm with the depth of expertise and flexibility of a niche practice to support clients in addressing their most pressing organisational issues through the provision of highly professional, innovative, customer focussed solutions which deliver expected business benefits on time every time.

With an exceptional track record of delivering multi-million pound savings for prominent Public and Private Sector clients, our Organisational Excellence approach provides the skills and capability required to support clients to maximise efficiency, improve quality and reduce cost.

Article Ends