SAFE

THE NEW UK STANDARD OF CARE
BANISH MEDICATION ERRORS

REPORT

CARE HOMES CHAPTER

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INTRODUCTION

The NHS has been hit by an uncomfortably stark fact – 237 million medication errors occur in England each year as a result of working practices around prescribing, transition, dispensing, administration and monitoring.[1] These errors cut across multiple sectors including clinical professions and come at a cost to patients and to the NHS.

Medication errors are a global problem. The World Health Organization (WHO) are calling for medication errors to be cut by 50% in the next five years[2]. This has prompted the Department of Health and Social Care to commission its own research into the extent and scale of medication errors. Its review, Prevalence and Economic Burden of Medication Errors in the NHS,[1] was accompanied by a report from the Short Life Working Group (SLWG) outlining the Department's implementation plan for reducing medication errors.[3] The key priorities identified were employing new technology, improving transparency and fostering a culture of learning rather than blame.

It seems that this time the Department is serious about offering the support to see it through. Patient safety has been catapulted to the top of the political agenda and all eyes are on it. The Chair of the House of Commons Public Accounts Committee has stated that the committee will scrutinise what the Department is doing to take the agenda forward. Meanwhile extra funding is expected to follow reinforcing the gravity of the situation and the urgency for dealing with it.

BACKGROUND

Of the 237 million medication errors that occur every year in England, the largest proportion occurs in care homes (41.7% vs. 38.3% in primary care and 20% in secondary care).[1] And yet care homes cover fewer patients than the other sectors, which shines a spotlight on the fact that they have the highest error rates per patient.

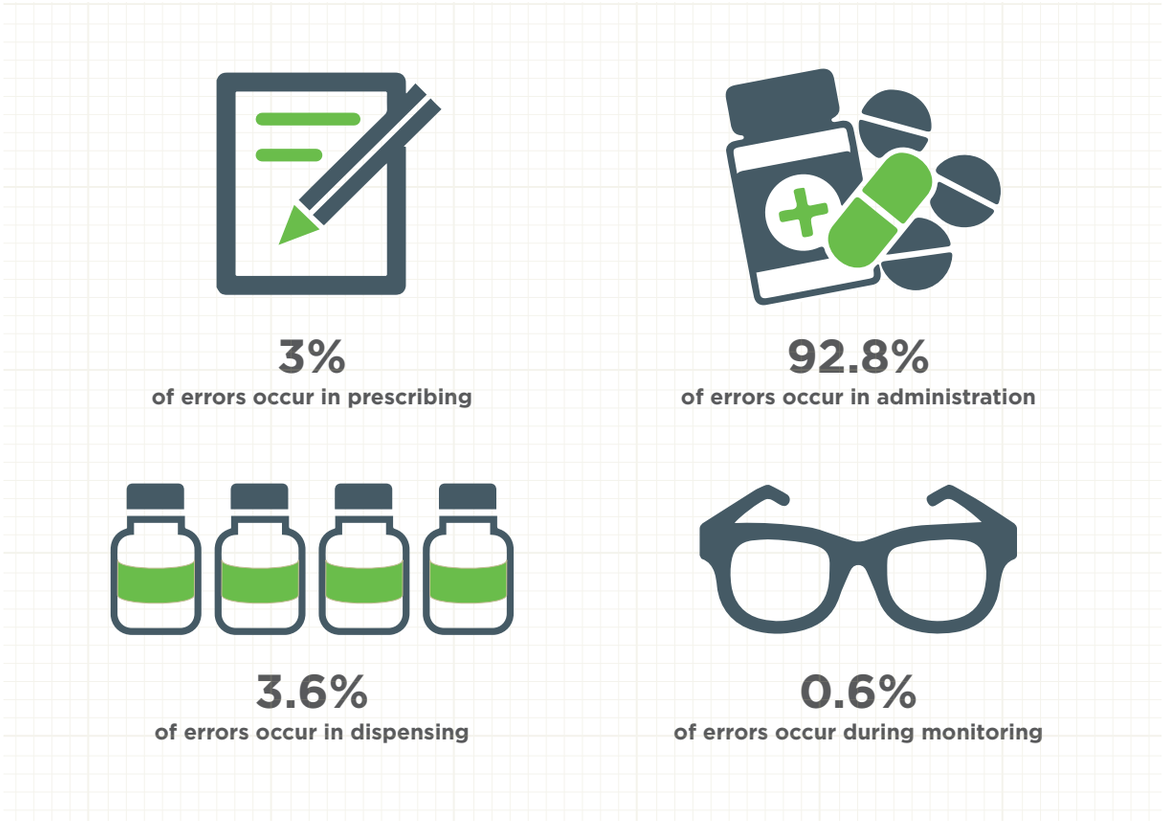
The high frequency of errors in care homes is not surprising given the volume and complexity of medicines being administered to elderly residents by carers with limited knowledge of medication. These residents can also be moving in and out of hospital and may have dementia, adding further confusion to medicines administration. Unfortunately these patients are the most vulnerable to the consequences of medication errors. WHO's three early priorities for action - high risk situations, polypharmacy and transitions of care – therefore corroborates the need for urgent action in care homes.[2]

In support of the WHO campaign, the Short Life Working Group (SLWG) has recommended an implementation plan to the Department of Health that would help reduce medication errors in care homes.[3] This includes using technology for medicines administration, closer working between care homes and healthcare professionals and improving the transfer of information about medicines when patients move between care settings.

THE SCALE AND IMPACT OF ERRORS IN CARE HOMES

The Department's review document Prevalence and Economic Burden of Medication Errors in the NHS found that in care homes the overwhelming majority of medication errors - 92.8% - are due to administration (compared to 78.6% in secondary care).[1]

Almost 70% of care home residents have experienced at least one error in their medication regime, according to a report from the Care Home use of Medicines Study (CHUMS).[4]



OTHER SIGNIFICANT FACTS

- In the UK there are around 426,000 people living in residential care homes and 95% of them are aged over 65 years. [5]
- The National Institute for Health and Care Excellence (NICE) estimates that 66% of people in that age group have co-morbidities and 47% have three or more of these co-morbidities. [6]
- The King's Fund estimates around 97% of care home residents are on prescription drugs. [7]
- A care home resident is prescribed an average 7.2 medicines a day. [4]
- With each additional medicine there is an increased risk of errors in prescribing, monitoring, dispensing and administration, adverse drug reactions, impaired medication adherence and compromised quality of life for patients

Medication errors impact on residents' health and safety and on the care home business. In September 2016, the Care Quality Commission (CQC) prosecuted and fined one care home £50,000 following the death of a resident as a result of errors with the administration of anticoagulants. [8]

WHERE AND HOW ERRORS OCCUR

In the care home setting, the main factors that contribute to medication errors are patients' drug regimens, staffing and the medication administration processes.

Errors are more likely in older people and in the presence of co-morbidity and polypharmacy. Errors also occur when patients transition between care home and hospital, partly because medicines information is not always communicated accurately between these care settings.

Because so many of the residents are on medication, medicines rounds are prolonged, busy and prone to interruptions. Staff are pulled away from medicines administration tasks and try to pick up where they left off or someone else steps in, disrupting the continuity in the process. Staff may also have a limited awareness around medicines compared to nurses working in secondary care and may not have in depth knowledge about side effects and allergies to recognise potential problems.

The reliance on paper-based medicines administration records (MAR) means the accuracy of these records need constant review. They also bring a higher risk of human error in the selection and administration process. This is compounded by the absence of protocols and staff training.

Last year the CQC's State of Adult Social Care Services 2014 to 2017 report[8] found that medicines management was a key factor associated with unsafe care. The main issue was around documentation, for example errors around medication dosages, strengths and timings not being accurately recorded.

OTHER SPECIFIC ISSUES HIGHLIGHTED INCLUDED:

- Medicines not being administered properly
- Staff lacking knowledge of medicines and their side effects
- Issues with record keeping, including timelines
- A lack of medicines audits
- Medicines being out of date and not being stored correctly

RECOMMENDATIONS

Minimising selection and administration errors is critical in reducing medication errors in care homes.

One way is to address the concerns highlighted by the CQC is through training, improving record keeping, correct storage and management of medicines as well as having a clear audit trail.

Another way is for pharmacies to work more closely with care homes. The SLWG cites the proposal for 240 pharmacists and pharmacy technicians to work more closely with care homes to mirror the current GP practice pharmacist initiative.[3] Pharmacy support would include medicines reviews to optimise medicines, reduce polypharmacy (through deprescribing) and minimise risk of medicines errors.

Pharmacies already supplying medicines to care homes are increasingly getting involved in training care staff and replacing paper records with eMAR to increase safety and improve efficiency.

FEATURES OF AN IDEAL eMAR

With an ideal eMAR system medication is identified through a barcode applied in the pharmacy. Medication can then be tracked at all stages from check-in at the care home and administration to the resident to unused items that are disposed of or returned to the pharmacy.

The system uses on-screen photographic identification and provides important medical history for each resident. It includes a simple alert and verification system to minimise the risk of medication administration errors in the home. Each staff member has their own log-in details which enables robust auditing.

BENEFIT OF eMAR

SOME OF THE BENEFITS INCLUDE:

- Replaces cumbersome paper based system
- Provides safety net for staff
- Ensures drugs and doses are correct and that medication is given to the right person at the right time, every time
- Allows pharmacy to identify and immediately deal with medication errors and changes to prescriptions (through a centralised database viewed by both pharmacy and care home) including:
    - Missed medications or incomplete rounds
    - Missed signatures
    - Medication notifications
    - Controlled drugs
    - Irregular dosing can be managed for example warfarin or alendronic acid

HOW IT WORKS DURING A MEDICATION ROUND

Medication is delivered with barcodes from the pharmacy and is 'checked in' at the care home using the eMAR system and barcode scanning. Medication is assigned to individual residents during the check-in process. Once medication had been checked-in it is administered during medication rounds as follows:

1. Use the eMAR software to select the resident on screen

2. Select the medication assigned to them

3. Scan the correct medication (if wrong medication or resident is selected at this stage it will not recognise the barcode)

4. Review the information that appears on the screen and confirm the quantity is correct

5. The electronic MAR sheet is updated to show that the medication has been prepared

6. Administer the medication from the cup and record administration or reason for non-administration when prompted on screen

7. The electronic MAR sheet is updated to show the medication was administered or why it wasn't administered

8. The MAR chart is saved and data can be viewed in real time

CASE STUDIES – HOW IT WORKS IN PRACTICE

The pharmacy and the care home need a system that works seamlessly and allows two-way communication and an audit trail. There are several examples of how this has worked successfully – driving safety and efficiencies in both the pharmacy and the care home and ultimately improving the patient experience.

THE COACH HOUSE CARE HOME FOR THE ELDERLY – LEEDS

INTRODUCED EMAR, IMPROVED PATIENT SAFETY AND REDUCED THE RISK OF HUMAN ERROR

The Coach House Care Home is a 21-bed residential home with residents on complex medication regimes. A CQC inspection in May 2017 highlighted a number of issues with their medication rounds and so the Coach House looked at a strategy that would focus on the following:

- Address CQC concerns
- Reduce the risk of human error during medication rounds, improving residents safety
- Improve the accuracy of drug counts and the time taken to do them
- Improve the audit trail of medication rounds and replace a cumbersome paper based system.

They invested in Omnicell eMAR in September 2017 and were inspected again by the CQC in November 2017 who were reassured by the safety measures that eMAR introduced. The November CQC report highlighted the following:

- Medicines were managed well and administration was safe.
- There were systems in place to ensure that medicines had been stored, administered and audited appropriately.
- An automated medicines management and administration system had been introduced.
- Staff spoke positively of the new system and explained it was safer and had been introduced to reduce errors in medicines management.
- Each staff member with responsibility for medicines had their own sign in as an identity check and to record which staff member had administered the medicines.
- The system prompted staff if there were any safety issues involved with the medicines about to be offered.
- The system also timed the rounds to ensure people got their medicines at the correct time intervals and confirmed that all the medicines had been dispensed at the end of the round.
- People's electronic medicine administration records included a copy of their photograph and details of any known medicines allergies to help reduce the risks associated with medicines administration.
- The eMARs showed people had received their medicines as prescribed and could also be accurately cross referenced with remaining medicines stocks to show that these were correct.
- People who were prescribed 'as required' medicines had protocols in place to guide staff when and how to administer these medicines safely.

"The risk of human error during medication administration has been taken away since implementing Omnicell eMAR. For example, there is no longer the risk of overdosing patients as the system prompts you and tells you exactly when the resident had that last dose of medication. There have also been no incidents of missed medications errors since implementing the system. The audit trail is now much clearer as we no longer rely on a paper based system – in the event of discrepancies we can now see straight away what has happened and why it occurred. Stock counts are also much more accurate and quicker to do." Claire Buckle, Manager at Coach House Care Home.

CONCLUSION

Many errors will be noticed before they reach a patient or would have little impact on them. However others can have devastating consequences. Elderly residents in care homes are often on complex drug regimes, have co-morbidities and are more frail and vulnerable than the rest of the population.

Minimising selection and administration errors by care home staff in medicines rounds is critical in reducing medication errors in care homes. An automated system that uses barcode scanning of drugs would provide more robust checking of medication and reduce incorrect selection. It would facilitate a robust audit trail and would address many of the documentation and administration issues highlighted by the CQC.

Omnicell will support an introduction of Standards of Care in each setting to facilitate shared learning and showcase those that have demonstrated benefits from new ways of working.

Omnicell is once again this year implementing a SAFE (safeguarding against frontline errors) campaign amongst key opinion leaders within secondary care, care home and pharmacy settings in order to raise awareness of the impact of medication errors. The campaign aims to drive change and understanding around the role of technology in tackling the problem. #BanishMedErrors for more information please visit www.omnicell.co.uk

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