“How to” Guide:

Making a difference - Designing and Implementing Interventions to reduce the incidence of omitted medicines

Aim

This document together with its companion - the “How to” Guide for Monitoring the Incidence of omitted medicines – has been developed to help organisations to undertake a quality initiative through:

1. Improving patient safety and hence patient outcomes
2. Reducing the incidence of omitted medication doses
3. Working with the multidisciplinary team to ensure medicines are given on time

Top Tips for Success
This is a multi-professional issue. Prescribers need to communicate when they prescribe something new, and it needs to be clear! Nurses need to be able to find the medication to give and see it as a key priority amongst their many tasks. Make sure you engage with all stakeholders on this topic. Identify some local champions. They need to help identify the solutions!

Tips on using this How to Guide

This “How to” Guide gives step by step guidance on designing interventions to reduce the incidence of omitted medicines in bedded units or selected care areas as part of a quality improvement programme. It is designed such that Pharmacy Managers can give the document to more junior staff to undertake the work in a structured manner and check back with progress. There is also an Appendix that can be used as an action plan/check list to monitor progress and for the junior staff to record any issues.

Background

One of the few specific mentions of medicines in the Francis Report into Mid Staffordshire Hospitals Link recommends ensuring that medicines are given on time and that it is the responsibility of the ward manager to ensure this happens.

Although the NPSA Rapid Response Report 009 Reducing Harm from omitted and delayed medicines in hospital came out in February 2010 citing an incidence for omitted doses of 5% it would appear there is still room for improvement. Link A collaborative audit of Delayed and Omitted Antimicrobial Doses undertaken by Specialist Pharmacy Services across 54 organisations in December 2010 found an omission rate of 5.3% doses affecting 13.2% of patients. Link Similar percentages of omitted medicines are seen in reports to the National Patient Safety Agency (NPSA). The NPSA has moved to NHS Improvement in the Patient Safety Directorate. The Medicines Safety Thermometer also includes Omitted Medicines where data is collected monthly on a small sample basis.

Top Tips for Success
The Nursing and Midwifery Council (NMC) Medicines Management Standards describe Medicines Administration as “not solely a mechanistic task to be performed in strict compliance with the written prescription……it requires thought and professional judgement.

Local audit data

Having either followed the guidance in the “How to” Guide for monitoring the incidence of omitted medicines or by reviewing the omitted medicines data for your organisation, you will have a picture of what the local omission rate is and whether there are issues with particular clinical areas, particular medicines or groups of medicines. You will also have an idea of the wards that would be willing to pilot changes. Review your organisation’s data with your manager.
Gather examples of improvements that other organisations have implemented:

1. The Specialist Pharmacy Services report on Delayed and Omitted Antimicrobial Doses gives some ideas of interventions that have been successful in improving the incidence of omitted medicines [Link].
   e.g. prescribe first dose of antimicrobials as stat doses; put systems in place to help nursing staff locate medicines; report doses due in nursing handover.
2. Follow this [Link] for presentations on Omitted Medicines at a past Medicines Use and Safety Network meeting.
3. There is a useful summary document of Practices to Support Safer Use of Medicines in Hospitals produced by Specialist Pharmacy Service; particularly see the section on administration [Link].
4. Identify some examples that you feel could work in your organisation - discuss with your manager.

Gather ideas for improvement from staff locally

1. Often the staff involved in processes can see ways to improve things.
2. Consider holding a Focus Group or have an ideas board to gather ideas.

Planning the intervention:

1. Agree with your manager which interventions you are going to test out where and when.
2. You will need to arrange for data on omitted doses to be collected regularly so that you can see whether the intervention is working. Perhaps you can use or modify an existing data collection tool.
   See also the “How to” Guide for Monitoring the Incidence of omitted medicines [link].
3. Ensure you have engagement from the rest of the multi-disciplinary team - your manager may be able to help with this.
4. Have a target to aim for e.g. a 10% reduction in incidence of omitted doses after 1 week and a 50% reduction in a month or ensure 95% of Critical List Medicines are given on time or target a reduction in particular type of omission eg blanks ie no documentation.

Designing the intervention:

**Top Tips for Success**

Keep your interventions simple, keep them small. Rapidly repeating small PDSA (Plan Do Study Act) cycles will be more successful in making and sustaining improvements than large scale audits. Regular reviews of e.g. 5 charts will give you more information than auditing the whole ward.

1. Keep refining and repeat the PDSA cycles until you see improvement or abandon the intervention if no improvement is seen. For further information on the Model for Improvement go to this [Link].
2. Once you have intervention(s) that work in one clinical area – test in another clinical area – does it work or does it need adapting? Spread to a few more enthusiastic clinical areas before spreading to the whole organisation.

Sustaining the changes/improvements

Once you have implemented your improvement it needs to embed into practice so it becomes the norm. However plan to regularly audit (e.g. monthly) or to undertake a review audit to ensure the improvement is sustained. Ensure the improved ways of working are included in updates of standard operating procedures.

**Top Tips for Success**

Very often the practical aspects of medicines administration are not taught to trainee nurses in a practical way and this may need to be addressed. A long term strategy could include working more closely with Schools of Nursing.

Share your success

Making changes and improvements is always challenging especially when multiple factors and people are involved. Share your successes however small, both within in your organisation and more widely. Specialist Pharmacy Service have collated details of improvements made to reducing the incidence of omitted medicines details are in this [link] or if you have further improvements to share send your results/ideas to jane.hough4@nhs.net.
Examples of ideas other people have introduced

Top Tips for success: Interventions should be simple

Policy
- Ensure good policies in place e.g. NBM
- Review your omission codes to help provide meaningful data to prompt and/or promote change
- Consider codes for “not prescribed accurately” and/or “no accurate medication history available”

Prescribing
- Change time of administration of once daily morning doses to mid-day. Some projects have shown that more omitted doses occur in the morning round when there are more doses to be given and when there are many other competing tasks
- Standardise times of administration whilst recognising that this will not suit all medicines
- Raise awareness of the omission codes with medical staff
- Introduce a ward round check list for prescribers that includes communicating newly started medicines to nursing staff
- Prescribe first doses of antimicrobial courses on the stat section of the drug chart
- Electronic prescribing will flag up doses that are due

Administration
- Use Do Not Disturb Tabards for nurses doing drug rounds and empower the wearer to not be interrupted
- Encourage nurses to use a timer to remind them when doses are due outside of the standard times
- Rearrange work to allow injectables to be given as their timing is often important.
- When a number of medicines are due do not leave injectables until last
- To facilitate patient self-administration some trusts assume all patients are competent to self-administer unless proven otherwise
- Use a note book on the drug trolley to record what has been ordered
- Stop drug charts being away from the ward – medicines can’t be administered without a drug chart!
- Promote the use of Patient’s Own from POD locker supplies
- Introduce a medicines administration check list. Foster self-checking for medicines administration to ensure doses have been given and if not some action has been taken and recorded.
- Consider adding patients on “critical medicines” to handover sheets
- Discuss doses not administered at handover.
- Follow up patient refusals especially on Care of Elderly and Mental Health wards. Report multiple refusals for prescription review.
- Double checking all medicines administered at end of drug round – either staff themselves or sister/matron.
- Suggest nurses swap drug charts at the end of the round to check all doses due have been given.

Supply
- Engage the pharmacy and nursing teams to consider stock lists and timing of visits from the pharmacy staff
- Check pharmacy processes are fit for purpose especially out of hours
- Consider a special cupboard containing critical medicines not stocked on the ward including non-formulary items
- Raise awareness of how to obtain medicines both in and out of pharmacy opening hours. Visual posters/flow diagrams may help

Staff development
- Introduce random checks of drug charts by ward manager.
- Consider Medication Safety visits by a Multi-disciplinary Team
- Give a prize to the ward with the lowest proportion of omitted doses.
- Use healthy competition.
- Consider working with local school of nursing or Lead Safety Nurse to ensure medicines administration is taught practically as well as theoretically.
### Action Plan/Check list to Design and implement interventions to reduce the incidence of omitted medicines

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deadline/Achieved</th>
<th>Notes/Issues</th>
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<tbody>
<tr>
<td>Review the local audit data with your manager</td>
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<tr>
<td>Identify clinical areas, medicines or groups of medicines that need to be targeted for improvement</td>
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<td>Gather ideas for improvement using this tool and the staff involved – consider using an ideas board or hold a focus group</td>
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<tr>
<td>Plan the interventions – agree with your manager what is going to be tested where and when</td>
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<tr>
<td>Design the intervention</td>
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<td>Learn about and/or discuss the Model for Improvement with your manager</td>
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<td>Repeat rapid PDSA cycles until you find something that works or abandon it as an idea – record what worked and what needed changing</td>
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<td>Test the intervention in another clinical area or two</td>
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<td>Spread the intervention around the organisation</td>
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<td>Agree when to re-audit to check improvement is sustained</td>
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<tr>
<td>Test another intervention in your initial pilot areas or another enthusiastic area</td>
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<td>Plan how you are going to share your success – a publication, a presentation?</td>
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