



# How to Guide: Omitted Medicines

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The Scottish Patient Safety Programme (SPSP) aims to improve the safety and reliability of health and social care and reduce harm, whenever care is delivered.

As part of Healthcare Improvement Scotland's ihub, SPSP activities support the provision of safe, high quality care, whatever the setting.



**This 'How to' Guide gives step by step guidance on identifying current incidences of omitted medicines as part of a quality improvement programme.**

**It is designed so that managers can give the document to more junior staff who can undertake the work in a structured manner and check back with progress. The Action Plan/Checklist in Appendix 1 can be used to monitor progress and record any issues.**

This resource has been adapted with permission from the Medicines Use and Safety Team, Specialist Pharmacy Service  
[www.sps.nhs.uk/articles/how-to-guides-reducing-the-incidence-of-omitted-medicines-2](http://www.sps.nhs.uk/articles/how-to-guides-reducing-the-incidence-of-omitted-medicines-2)

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## Aim

This document has been developed to help health and social care organisations to undertake a quality improvement initiative through:

1. improving patient safety and hence patient outcomes
2. reducing the incidence of omitted medication doses, and
3. working with the multidisciplinary team to ensure medicines are given on time.

## Background

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

The National Patient Safety Agency (NPSA) produced a Rapid Response Report (RRR) in February 2010: [\*\*009 Reducing Harm from Omitted and Delayed Medicines in Hospital\*\*](#) citing an incidence for omitted doses of 5% and opportunities for improvement.

## Getting started

### Gathering background information:

1. Read the NPSA RRR 009 on [\*\*Reducing Harm from Omitted and Delayed Medicines in Hospital\*\*](#).
2. You may also wish to read the Specialist Pharmacy Service report of [\*\*A Collaborative Audit of Delayed and Omitted Antimicrobial Doses Conducted in NHS England\*\*](#).  
Antimicrobials were chosen for this audit because they are a common intervention and would appear on the majority of organisations' critical medicines lists (where critical medicines lists exist).



**Top Tips** - aim for small successes that could be rolled out in other areas. Choose areas where staff are already interested.

### Who to involve locally

1. Identify who drives practice and improvements locally. Talk to your manager and consider how to engage them in this area.
2. Identify and consult with local quality improvement experts (improvement advisors)
3. Consider what motivates people to change practice.
4. Identify local champions from nursing, pharmacy and medical staff – these people may not always be the most obvious – discuss your thoughts with your manager.
5. Identify an area where staff are particularly interested, motivated and/or supportive. Perhaps they already have a record of successful change/improvement implementation or strong leadership.
6. If your target clinical area is not interested in omitted medicines, find some issues that make it a top priority for them or show them changes in practice that could make their life easier. Patient stories can be very powerful.
7. Check that there is senior organisational commitment to reducing the incidence of omitted medicines, for example Governance or Safety Lead, the Medical Director or Chief Nurse. Ensure that Omitted Medicines is an agenda item for the relevant medication safety committees.

### Gather some local baseline data

1. Find out if your organisation has a list of ‘Critical Medicines’.
2. Does your organisation have an agreed omitted medicines algorithm or guidance document?
3. Identify whether your organisation already collects data on omitted doses – there may be local data held in clinical areas or pharmacy. Your organisation may have been asked to report on omitted medicines to a governance committee/medication safety group.
4. Check your incident reporting database (for example DATIX).
5. Does your organisation have electronic prescribing? – if so, you will be able to get reports of missed doses from the system.
6. Do the results from any of these audits/databases give you some clues as to ‘problem’ areas or groups of medicines that are omitted more frequently than others?
7. Discuss with your manager if you need to undertake a targeted or whole organisation baseline audit to identify areas for improvement.

### Method for identifying areas for improvement

If you need to collect some baseline data, consider the pros and cons of concentrating on:

1. antimicrobials
2. all critical medicines on your local list (if you have one)
3. certain problem areas only, for example therapeutic areas, groups of medicines or care areas
4. all types of medicines
5. regular and stat doses or all doses, including as required ones, and
6. the red or orange medicines from the list of critical medicines developed by the [\*\*UK Medicines Information Service\*\*](#).

### If you don't have baseline data

1. Reviewing all charts on one day in the chosen area may be an option to provide a snapshot view of current practice, OR
2. Review a selection of charts over a few days to capture a typical weekday as well as weekend administration.

Using either method, determine the total number of doses of medicines that were intended to be administered and the total number of doses of medicines that were omitted.

Consider the pros and cons of one person collecting the data as opposed to "all" staff.

### Once you know your baseline medicines omission rate

1. Agree an improvement goal for the clinical area (how much by when) for omitted medicines with the champions and lead of the clinical area.
2. Work with ward teams to generate change ideas/tests of change that they think will make an improvement.
3. Let the testing begin! Use PDSA (plan, do, study, act) cycles to support rapid, small tests of change and learning.

## Looking at data over time

1. Collect a random sample of five charts each week from the clinical area and determine the total number of omitted medicines and the total number of medicine doses that should have been administered from these charts.
2. Aggregate the weekly data to generate a monthly omission rate.
3. Plot these data on a run chart each month, time series data, to monitor changes over time.

Improvement advisors in your organisation or the national SPSP team at Healthcare Improvement Scotland will be able to assist with setting aims and generating run charts.

Ensure that data collectors know what they are collecting - you may need to provide crib sheets so they can check they are collecting the right information. Also ensure they know when and where to return their data to or how to enter it onto the data base.

### Consider what data collection tools to use

1. You may already have a data collection tool - if staff are familiar with that continue to use it or modify if necessary.
2. [A data collection tool](#) has been developed by NHS Greater Glasgow and Clyde that you may wish to use.
3. Pilot the data collection tool you plan to use to ensure it meets your requirements and that it is simple and easy for data collectors to understand.

### Consider how the data will be collected

1. Will data collectors use paper forms or an electronic device?
2. How will the data be entered for analysis - who will do the data entry?
3. Who will do the data analysis? Can a database be set up that automatically produces reports?

### Consider how to present the data

1. In what format will you communicate the results and to whom? Where will you display the data? Remember to feed back to the staff who collected the data.
2. Use the run charts to describe what is happening over time. Use annotation to indicate specific PDSA cycles or changes in the clinical area over time.

## Reviewing progress

Regularly discuss your findings with your manager and your preferred approaches. Agree a timetable of action. The Action Plan/Checklist in Appendix 1 is provided to give you a structured way to ensure everything is covered.

## Appendix 1 – Action Plan/Checklist

Use this action plan/checklist to check your progress and when meeting with your manager.

Activity	Deadline/Achieved	Notes/Issues
Gather background information		
Gather information on whom to involve locally		
Identify who drives practice locally		
Identify local champions		
Obtain/ensure senior organisational commitment		
Identify if local baseline data already exists, for example local audits.		
Review Incident Reports if necessary		
Use electronic prescribing records if you have them		
Discuss whether to target areas or cover the whole organisation		
Discuss which medicines to target		
Agree data collection method		
Review data collection tools; refine or design as necessary		
Pilot the data collection tools		
Decide who will analyse the data		
Discuss how the data will be presented and to whom		
Agree a timetable for data collection and analysis		

## Appendix 2 – Omitted Medicines Driver Diagram (June 2017)

Ambition and Aims	Primary Drivers	Secondary Drivers	Change Ideas
<p><b>Ambition: Patients in healthcare across Scotland will receive all appropriately prescribed medicines as intended.</b></p>	<p>Person-Centred Care / Involvement</p>	<ul style="list-style-type: none"> <li>A good history of previous medication use is obtained from patients and families</li> <li>Patients are involved in managing their medicines</li> <li>Inpatients are supported in asking questions about their medicines</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate patient and family oversight of medicines reconciliation documents</li> <li>Share the prescription chart with patients/carers</li> <li>Advise and support "Not sure? Just Ask", "Will my medicines make me better", and other patient resources</li> <li>Patients self-administer their own medicines, where appropriate (in accordance with local guidelines)</li> </ul>
<p><b>Aims: To be determined locally.</b></p>	<p>Leadership and Culture</p>	<ul style="list-style-type: none"> <li>Omitted medicines is a named priority in the board/partnership quality and safety agenda</li> <li>Reliable administration of medicines to patients is everybody's business</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen policy on accessing medicines within an institution, especially for out of hours</li> <li>Data related to medicine omissions are routinely reported at all levels, including safety boards in ward / clinical areas</li> <li>Utilise campaigns to improve medicines administration, e.g. zero tolerance week</li> <li>Use of simple communication tools, e.g. CUSS (Concerned, Unsure, Safe, Stop) where medicines are omitted</li> </ul>
	<p>Teamwork, Communication and Collaboration</p>	<ul style="list-style-type: none"> <li>Reliable documentation on medications charts</li> <li>Regular, standardised communication regarding omitted medicines</li> <li>Interruption-free medicine rounds</li> <li>Recognition of patients on critical medicines</li> </ul>	<ul style="list-style-type: none"> <li>Omitted medicines and patients on critical medicines highlighted at hand over and safety briefs.</li> <li>Prioritisation may be given to locally agreed critical medicines</li> <li>Highlighter used on paper medication charts to highlight blank spaces and other omission codes of interest</li> <li>post medication rounds/shift change</li> <li>Chance to check campaign (NHS GG&amp;C)</li> <li>Standardisation of codes related to medicines administration / omission (board level/ national) for both paper and electronic systems</li> <li>Ward round check list to include prompt for newly prescribed medicines to be discussed</li> <li>Medication safety visits to ward / clinical areas by MDT.</li> <li>Share medicine omissions with prescribers for individual patients</li> <li>Ensure timely correction of prescribing errors (e.g. highlight at ward rounds, white boards, handovers etc)</li> <li>Documentation in patients' records regarding medicine omissions (avoid - 'meds as charted')</li> </ul>
	<p>Safe, Effective and Reliable Care</p>	<ul style="list-style-type: none"> <li>Healthcare team understands of roles and responsibilities</li> <li>Awareness of locally agreed critical medicines</li> <li>Medicines are part of discussions at transitions between care settings, including admission and discharge</li> </ul>	<ul style="list-style-type: none"> <li>Improve knowledge and application of the relevant professional codes of conduct (e.g. NMC)</li> <li>Develop locally agreed list of critical medicines</li> <li>Education of staff (supply chain, critical meds, communication processes etc.)</li> <li>Post medicines administration round review of paper medication charts (double check between nursing staff)</li> <li>Change once daily morning doses to midday</li> <li>Reminders for medicines due outwith standard administration times (e.g. timer, book/diary)</li> <li>Use of electronic and other tools to facilitate communication about newly prescribed medicines/patients prescribed critical medicines</li> <li>Learning and responding to adverse events / DATIX reports related to omitted medicines</li> </ul>
	<p>Supply Systems</p>	<ul style="list-style-type: none"> <li>The supply system supports timely access to medicines</li> <li>Staff are aware of how the supply system works</li> <li>Use of patients own medicines</li> </ul>	<ul style="list-style-type: none"> <li>Regular review of the stock list of ward medicines</li> <li>Process map the supply of medicines to the ward/clinical areas (from the point of prescription to reaching the patient)</li> <li>Named person/role responsible for stock management (e.g. pharmacy technician, ward nurse)</li> <li>Escalation flow diagram when a medicine is not on the ward (e.g. SEED in NHS Lothian)</li> </ul>



**For more information, visit**

**<http://ihub.scot/spsp/medicines/omitted-medicines>**

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