Medication Safety Officer Handbook

The first stop for professional medicines advice
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Executive Summary

The Medication Safety Officer role was created on 20th March 2014 following the publication of an NHS England Patient Safety Alert that aimed to help healthcare providers increase the quality and frequency of incident reporting for medication errors and medical devices. The alert called on large healthcare provider organisations across a range of healthcare sectors and the independent sector, along with healthcare commissioners, to identify named responsible persons in both medication and medical device safety roles.

A new National Network was set up to support Medication Safety Officers through improved communication and feedback on reported safety issues, monthly webinars, online forums, conferences and workshops. A steering group was established to provide expert and strategic clinical support for the Medication Safety Officers and the National Network.

This handbook provides practical information and resources to support those who have been designated Medication Safety Officer in their organisation. It is particularly relevant to people new in post or as a quick refresh for established staff.
Introduction

This chapter provides the context and background to the Medication Safety Officer role.

Medicines are the most widely used intervention in health. Research evidence shows that medication errors and adverse drug reactions are common at all stages of the medicines use process and are associated with a high cost in terms of patient outcomes as well as financial consequences due to additional treatment or litigation [1].

In England, whilst much progress had been made, patient safety incidents relating to medication continue to be reported. Recognising this, NHS England and the Medicines and Healthcare products Regulatory Agency (MHRA) jointly issued a Stage 3, Directive Alert [2] to improve medication error incident reporting and learning [3].

A key aspect of this Alert was the designation of Medication Safety Officers (MSO). A complementary Stage 3 Directive Alert set up a raft of Medical Device Safety Officers (MDSO). It should be noted that many medicines are inexorably linked to devices for delivery, and synergies through collaboration with Safety Officers is an expectation of the role.

Formal notification of compliance with the Actions of the Alert was required by 20th September 2014. By December 2014, an initial survey of MSOs revealed individuals from a variety of organisations, including secondary care, clinical commissioning groups, mental health, community organisations, independent providers of NHS-funded care and community pharmacy, with variable experience, expertise, skills and time allocation.

Critically the average experience in medication patient safety roles was 10 years and on average 4 hours per week was dedicated to the role.

The purpose of this handbook is to enable newly designated as well as established MSOs to fulfil their role effectively by signposting relevant information and resources.

The handbook highlights the core knowledge and skills needed to deliver the MSO role and responsibilities.
Getting started

Trying to get a business case to fund a Medication Safety Officer post? Or just new to the Medication Safety Officer role and unsure of your responsibilities? Read on for some basic steps to get you started.

The patient safety alert outlined the key roles and responsibilities of MSOs and these are stated below. If you are looking for examples of job descriptions or business cases, you can find these on the Specialist Pharmacy Service MSO resource pages [https://www.sps.nhs.uk/articles/resources-for-msos/]

Role and responsibilities of the MSO

One of the MSOs’ key roles is to promote the safe use of medicines across their organisations and be the main experts in this area.

In the supporting document to the Alert responsibilities are defined and include:

- being an active member of the National Medication Safety Network;
- managing medication incident reporting in the organisation, and improving the reporting and learning from these; and
- working as a member of the medication safety committee - a multi-professional committee to support the safe use of medicines in the organisation. The medication safety committee should include medical staff; nursing staff; pharmacy staff; those in risk management and general management; and, a patient representative.

The supporting information [1] for the alert provides details of the MSO responsibilities as well as the role of the medication safety committee.

Practicalities

One of the first things you need to do is make sure that your details are up to date on the Central Alerting System (CAS) using the MSO contact form: https://www.england.nhs.uk/wp-content/uploads/2014/09/appdx-c-note-cas-alrts.doc

The CAS is managed by MHRA. A useful contact for this is the CAS team (Safetyalerts@dh.gsi.gov.uk). Legitimacy for the role and its responsibility is linked to being identified on the CAS list of MSOs. Being on the list is essential to make sure you receive all the relevant communication, including invites to meetings and events, from the National MSO Network.

Next, work through the following questions, which will begin to introduce you to key individuals within your organisation, and start you off with fulfilling your responsibilities.

Fact finding: Do you know...

1. How to access your generic MSO mailbox?

All organisations with an MSO should have a generic mailbox address. Find out what yours is and make sure you can access this [Chapter 3]. Please note that it is your responsibility to disseminate and communicate within your organisation, whether you have a generic email, a direct email address or both.

2. How to access your incident reporting system?

Where possible, access to the reporting system is a requirement of the post. This is because the Alert makes the MSO responsible as a key individual to improve the quality and frequency of the organisation’s reporting. Without access it is not readily feasible to review and confirm the accuracy of the data or the error.

In secondary care trusts you will need to access the incident reporting system as an ‘expert’ or ‘super-user’ with the ability to review, revise, and in some organisations approve medication incidents before they are uploaded to the National Reporting and Learning System (NRLS). The Alert underpins that as the organisation’s MSO you are the nominated individual for assuring the quality and frequency of reporting in your organisation. It is also useful to be able to interrogate and create reports from these systems to help you monitor trends and identify themes.

Your organisations may not have implemented electronic reporting direct to the NRLS. In such cases, it is imperative to ensure that there is still local learning from error and continuous safety improvement within the organisation. Also, that it strives to develop national reporting mechanisms. Where the learning is considered to be of national importance then this should be communicated
directly to England.medication-safety@nhs.net who is able to take it through the relevant national policy and strategy systems.

For the purposes of the Alert it is still necessary to be able to demonstrate that there is a system for compiling error reports, learning from them and progressively making care safer for patients.

3. **Who your organisation’s incident reporting system manager or lead is?**

Organisations with reporting systems are likely to have a dedicated incident reporting system manager or lead who will be a key contact to enable your access and use of your local system as described above. The Alert provides the authority for you to engage with this person(s).

4. **How often incidents are uploaded to the NRLS?**

One of the Alert requirements was to improve the timeliness of reporting to the NRLS, so knowing how often incidents are uploaded from your organisation, and influencing this if necessary, will help you with this role. There are rules for reporting serious harm within 48 hours ([https://www.england.nhs.uk/patientsafety/serious-incident/](https://www.england.nhs.uk/patientsafety/serious-incident/)). A benchmark for other levels of harm would be under a month from the date of incident.

5. **How medication related categories in your local incident reporting system map across to the NRLS codes for medication incidents?**

Improving the quality of reports and minimising the use of categories such as ‘other’ and ‘unknown’ was a driver for the alert. Many organisations use local categories, which if not mapped properly, may get reported as ‘other’ and ‘unknown’ when uploaded to the NRLS. Check what categories are in use at your organisation and how these map across to the NRLS categories. (Chapter 4).

6. **Who the organisation’s Medical Device Safety Officer is?**

Medication administration often involves the use of devices and equipment such as infusion pumps. Some products, for example, flushes may also be licensed as devices. It is therefore important to work closely with your MDSO to ensure a comprehensive review and understanding. In some organisations, the same individual may be the MSO as well as the MDSO. We estimate that 20% of non-serious harm medication errors involve medical devices and this rises to nearly 50% for serious harm. Through the Safety Officer Alerts strong links have been forged with medicines and the devices staff at the MHRA. You can engage with them through the MSO/MDSO forum.

7. **Which board director or equivalent has oversight responsibility for medication safety?**

The individual with oversight responsibilities is your ‘go-to’ person for escalating issues to the board, so make sure you know them, and they know who you are (Chapter 5).
Access your generic mailbox

All organisations with an MSO were required to set up a generic MSO mailbox address. This may be accessed in a number of ways as described in this Chapter.

The generic MSO mailbox needs to be set up locally by your organisation’s IT department and can be accessed by multiple users. Ideally this should be in the format: organisation-name.mso@nhs.net

Note that nhs.net generic mailboxes may only be accessed by users who have an nhs.net email addresses. Therefore you and your team may need to get a personal nhs.net email address before you can access the generic MSO mailbox.

If it is not possible to have an nhs.net email address, please provide a single direct address in the organisation that can be used for communication.

Remember to check your generic mailbox on a regular basis, ideally once a day at least, as this is where you will receive information about web events and other updates from the NHS Improvement Patient Safety Team or the NHS Specialist Pharmacy Service (SPS).

There are two ways to access your generic mailbox as described in the following sections.

Log on to your personal nhs.net email. This may be either using the web version (figure 1) or Microsoft Outlook (figure 2)

Figure 1

Figure 2
Method 1 - if you are using the web version

a) click on the dropdown arrow that appears near your name in the top right hand side and click on the option to ‘open another mailbox’ (figure 3)

Figure 3

b) In the select mailbox field (figure 4) type in all or part of your generic MSO email address and search; unless you have access to multiple mailboxes, that should bring up your generic mailbox and then click open.

Figure 4
Method 2 - If you are using Microsoft Outlook

a) Go to File, Open, Other User’s folder (figure 5)

Figure 5

b) type in ‘MSO’ in the name field (figure 6) and that should open your generic mailbox

Figure 6
Reporting monitoring and alerting systems

Healthcare systems are complex involving multiple individuals and settings as well as information technology and reporting systems. Medication safety forms part of this wider system of patient care and safety. This section highlights the overlap and interaction between different reporting and monitoring systems.

A number of national and local medication safety, medicines optimisation and patient systems exist. As MSO you need to know and understand these to facilitate your role.

Organisational reporting systems

Each organisation will have specific reporting systems for different issues, such as claims, complaints, Patient Advisory and Liaison Services and incidents. All of these may include medication related reports, which may or may not be reported in the incident reporting system.

Additionally, even within an incident reporting system, medication incidents may be categorised as something else. For example medication omissions or delays due to lack of staff may be categorised as ‘infrastructure’ or ‘inadequate staffing.’

To get a full picture of medication safety reports, you need to find out how the different reporting systems interact. It is also advisable to gain a better understanding of the full coding structure of the incident reporting system.

National Reporting & Learning System

For the majority of MSOs, data from your organisational reporting system will be uploaded to the NRLS. The frequency of reporting will vary by organisation, so find out how often reports are uploaded at your organisation. See the website (http://www.nrls.npsa.nhs.uk/report-a-patient-safety-incident/about-reporting-patient-safety-incidents/) for further details on ways of reporting, including a specific e-form for General Practitioners and their staff, as well as patients.

The NRLS is a ‘relational database’ that is dynamic,
meaning that organisations can upload, change, amend, delete or add to any of its reported incidents. So even if an incident is being reviewed, it is possible for the preliminary report to be uploaded within a month and the full report to be finalised once the details have been finalised.

Some MSOs work for organisations that do not currently upload to the NRLS, nevertheless there will be a mechanism for reporting and the same principles apply.

Map ‘local’ codes to appropriate NRLS codes if you are using different classification or categorisation. This will minimise the use of automated mapping to the code ‘other’. [Appendix 1]

Your local data will provide the richest source of information identifying local trends and themes and for learning across your organisation.

If you are interested in benchmarking on a wider level, then you can gain access to the NRLS database, which allows comparison with other organisations.

1. NRLS data is published regularly and data workbooks of Organisation Patient Safety Incident Reports are available at: http://www.nrls.npsa.nhs.uk/resources/?entryid45=135586

2. You should be able to request access to NRLS directly through your organisational co-ordinator or via the NRLS reporting homepage: https://report.nrls.nhs.uk/nrlsreporting/login.aspx?ReturnUrl=%2fnrlsreporting%2fAnalysis%2fAnalysis.aspx

3. Compare your data to up to 6 peer group organisations after logging in. The attached video clip [https://vimeo.com/183504778; enter nrlsvideo] demonstrates how you can do this. Note that data from the other organisations will be presented as an aggregate.
National Patient Safety Alerting System

The new National Patient Safety Alerting System (NPSAS) was launched in January 2014 to strengthen the rapid dissemination of urgent patient safety alerts to healthcare providers via the Central Alerting System (see below).

This 3 stage alerting system builds on the strengths of the previous National Patient Safety Agency (NPSA) patient safety alerts and rapid response reports and provides useful educational and implementation resources to support providers to put appropriate measures in place to prevent harm and encourage and share best practice in patient safety. Details of the 3 stages are provided on the NHS Improvement website: https://improvement.nhs.uk/resources/patient-safety-alerts/

As MSO an implicit aspect of your role is to report local learning that has national implications to NHS Improvement (directly or through the medication patient safety team or through the national MSO network) so that urgent issues and alerts can be considered through the NPSAS.

At the time of the current handbook, a pilot is underway involving a stakeholder panel to advise NHS improvement over how it should respond to new or under-recognised issues that may need national advice and guidance, which may be in the issuing of a National Patient Safety Alert or may be addressed through other routes.

There are three MSO representatives on the stakeholder panel that is initially due to run as a pilot for six months with opportunity for evaluation at the end of this time.

The original Patient (Medication) Safety Alerts from the National Patient Safety Agency) issued between 2002 and 2012 are still active. The NPSA website has been archived. Details of the Alerts and the Signals and resources developed by Specialist Pharmacy Service to support the implementation of the alert/signal actions can be found on these two pages on the SPS website https://www.sps.nhs.uk/articles/patient-medication-safety-alerts-from-the-npsa-and-sps-resources-to-support-their-implementation/ and https://www.sps.nhs.uk/articles/npsa-signals-emerging-issues-from-national-review-of-serious-patient-safety-incidents-2009-2012-and-supporting-sps-resources/.

Central Alerting System

The Central Alerting System (CAS) is a web-based cascading system for issuing patient safety alerts, important public health messages and other safety critical information and guidance to the NHS and others, including independent providers of health and social care.
There are 5 main types of alerts available through the CAS: safety alerts, Chief Medical Officer messages, drug alerts, 'Dear Doctor' letters and medical device alerts.

The CAS help page: https://www.cas.dh.gov.uk/Help/Help.aspx provides specific guidance on how to use the system and search for relevant alerts.

**Yellow Card reporting**

The default is that adverse drug reactions (actual or suspected), not as a result of human error, should be reported using the Yellow Card Scheme [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard).

However, remember that data reported on the organisational reporting systems will be uploaded to the NRLS and relevant adverse drug reaction reports will automatically be passed on to the MHRA pharmacovigilance/Yellow Card reporting database.

Note that the MHRA's Yellow Card Scheme also collects reports all suspected problems or incidents related to medical devices, defective medicines, counterfeit products, and safety concerns relating to e-cigarettes through the online website.


Practical resources: [https://www.gov.uk/guidance/the-yellow-card-scheme-guidance-for-healthcare-professionals](https://www.gov.uk/guidance/the-yellow-card-scheme-guidance-for-healthcare-professionals)


**Medicines Optimisation Dashboard**

As an indicator of patient safety, the proportion of reported harmful medication incidents compared with total of medication incidents reported to the NRLS is displayed on the Medicines Optimisation dashboard. [available at: [https://www.england.nhs.uk/ourwork/pe/mo-dash/](https://www.england.nhs.uk/ourwork/pe/mo-dash/)]

High reporting has been suggested as a mark of a 'high reliability' organisations and therefore tracking this proportion over time would be a powerful measure of an organisation's safety culture.

NHS Confed|NPSA briefing: Five actions to improve patient safety reporting [http://www.nrls.npsa.nhs.uk/resources/?entryid45=59903](http://www.nrls.npsa.nhs.uk/resources/?entryid45=59903)

Frameworks and legislation

As MSO you should be aware of various frameworks and legislation for reporting and learning.

A number of additional frameworks and legislative requirements exist, which you may need to contribute to. The key ones are listed below, but always liaise with your governance and risk leads to make sure you are fully aware of any external or legal reporting requirements.

Never Events Policy and Framework

Never Events are serious incidents that are wholly preventable as guidance or safety recommendations that provide strong systemic protective barriers are available at a national level and should have been implemented by all healthcare providers. There are five medication related incident types in the current [2015/16] Never Events list.

Serious incidents Framework

The revised Serious Incident Framework was published in March 2015 and builds on previous guidance that introduced a systematic process for responding to serious incidents in NHS-funded care. The focus of the framework is learning from incidents.

Duty of Candour

Duty of Candour is a legal duty on hospital, community and mental health trusts to inform and apologise to patients if there have been mistakes in their care that have led to significant harm.


Infrastructure and support

Optimal delivery of MSO role and responsibilities requires appropriate support and organisational infrastructure.

Do you know the key players in patient safety and risk management in your organisation?

The alert required that a board director (medical or nursing supported by the chief pharmacist) or superintendent pharmacist in a community pharmacy or home healthcare company, should have oversight responsibilities for medication error incident reporting and learning systems.

Arrange a meeting with the individual with oversight responsibilities so you can introduce yourself. Use the opportunity to remind them about your as well as their role and responsibilities, which include:

c) fostering a safety culture; and,

d) satisfying themselves that the systems for reporting and learning are operating effectively and that important patient safety issues identified are addressed adequately locally.

Chapter 2 lists the other key players and how they can support you to ensure timely submission and monitoring of the quality and number of reports.

Committees

An existing or new multi-professional group should be identified to review medication incidents locally and instigate actions to make it safer for patients. This should include the MSO, medical staff, nursing staff, pharmacy staff, those in risk management and general management and a patient representative.

Find out how your medication safety group or committee links in with other committees within the organisation. This may include the drugs and therapeutics committee, patient safety or risk committees, local specialty or departmental clinical governance and risk groups. In many instances committees serve multiple functions.
It is important that you are represented within the organisation’s structure in a way that allows you to take the learning from local incidents and follow through with subsequent actions. In addition, national guidance will be issued requiring actions by organisations.

There is an expectation that the MSO is a recognised expert in understanding how national medication patient safety actions have and should be implemented. These include Alerts, Rapid Response Reports, Signals and guidance from the National Patient Safety Agency [http://www.npsa.nhs.uk/nrls/medication-zone/medication-guidance/](http://www.npsa.nhs.uk/nrls/medication-zone/medication-guidance/), NHS England [https://www.england.nhs.uk/patientsafety/psa/](https://www.england.nhs.uk/patientsafety/psa/), and NHS Improvement.

It is essential that you understand how you can escalate issues from the medication safety committee to the board.

**Network and collaboration**

Your main networking and collaborative group is the National Medication Safety Network (MSOnet). The objectives of the network are to:

- improve reporting and learning from medication incidents by educating and training MSOs in patient safety science, and disseminate relevant research and information concerning new risks and best practice;
- provide an environment for sharing best practice and for highlighting nationally risks that are identified locally; and,
- provide a platform for disseminating knowledge and understanding of patient safety issues and for refining instructions such as National Patient Safety Alerts.

Every MSO is expected to be an active member of the MSOnet. This involves participation in monthly web meetings [webexes], which are primarily a one-way information ‘push’ system. MSO webexes are organised by the MSOnet Steering Group.

Other activities of the MSOnet include a joint MDSO:MSO annual conference; smaller targeted ad-hoc web meetings, for example, community pharmacy, mental health, clinical commissioning groups; and an online discussion and information forum. To access the online forum, use your registered MSO email address and contact details to register at: [https://mso-mdso-forums.pgtb.me/nPZ2TX](https://mso-mdso-forums.pgtb.me/nPZ2TX)

Remember: you will only be able to access and interact on the forum after you have received a confirmation email.
At the time of the current handbook, a number of patient safety interest groups and initiatives exist with overlapping interests as listed below.

1) Medicines Use & Safety Team, NHS Specialist Pharmacy Service
2) Patient Safety Collaboratives including a Medication Safety Cluster
3) Academic Health Science Networks
4) Sign up for Safety Campaign
5) Regional and local MSO: MDSO networks [details are shared at the end of the monthly web events].
6) Meds IQ [an initiative to share QI resources for paediatric medication safety]
7) Yellow Card Centres [five regional adverse drug reaction monitoring centres].

Have you been involved in investigating an incident or developing innovative solutions to improve medication safety? Contact the MSOnet steering group via nicolawake@nhs.net or david.gerrett@nhs.net for a session to share the learning at a monthly webex.
Curricula, resources and tools

To be an effective MSO, you will need to acquire and develop specialist knowledge and skills.

The field of patient and medication safety continues to grow. In this chapter, you are signposted to a range of resources that will help your knowledge and skill development. Other formal taught courses (masters, postgraduate certificate and diploma) in the broader areas of quality and patient safety are delivered by a number of universities. However the focus of this section is curricula and tools specific to medication safety.

World Health Organisation Medication Safety curriculum

The learning objectives of the World Health Organisation curriculum for medication safety are "to provide an overview of medication safety and to encourage students to continue to learn and practise ways to improve the safety of medication use."

The curriculum forms part of a wider patient safety curriculum but may be undertaken as a standalone topic. Materials and course guide are available through the following links [last accessed 28th July 2016].

Slide set:  

Notes and guide:  

Although designed as a guide for teachers, it is a useful tool to learn from, and then of course you can use it to teach others!

Coming soon.....

WHO has identified Medication Safety as the theme for the next Global Patient Safety Challenge. The WHO Global Patient Safety Challenge on Medication Safety was launched in 2017 and the health services response is unfolding during 2018. Further information will be provided via the MSO network.
Royal Pharmaceutical Society Medication Safety Expert Professional Practice Curriculum

If you are a pharmacist by background and a member of the Royal Pharmaceutical Society, then this curriculum provides an overview of “the knowledge, skills, experience and skills required to practice at advanced level in Medication Safety”. You can evaluate your starting position and use the framework to guide your development through three stages: advanced stage 1, advanced stage 2 and mastery level.

Safer Healthcare: Strategies for the Real World

A book that sets out a system of safety strategies and interventions for managing patient safety on a day-to-day basis and improving safety over the long term. These strategies are applicable at all levels of the healthcare system from the frontline to the regulation and governance of the system.

[accessed 09/09/2016]

7 Steps to Medication Safety

This resource originally developed for pharmacists and senior pharmacy technicians [prior to the MSO role, pharmacy staff were tasked with leading on medication safety issues, and in many cases continue to do so] can be used by MSOs to work through the ‘7 steps’ to patient safety in the context of medicine use.


It is accepted that the seven steps definition for harm [see figure below] does not necessarily fit medication safety patient events as it does not account for psychological harm and it is very difficult for reporters to know the final outcome of harm when they are only aware of part of the patient’s journey.
# NPSA terms and definitions for grading patient safety incidents

<table>
<thead>
<tr>
<th>Old terms</th>
<th>New terms</th>
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<tr>
<td>None/ insignificant</td>
<td>No harm:</td>
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<td></td>
<td>* Impact prevented – Any patient safety incident that had the potential to cause harm but was prevented, resulting in no harm to people receiving NHS-funded care.</td>
</tr>
<tr>
<td></td>
<td>* Impact not prevented – Any patient safety incident that ran to completion but no harm occurred to people receiving NHS-funded care.</td>
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<tr>
<td>Low/minor</td>
<td>Low: Any patient safety incident that required extra observation or minor treatment and caused minimal harm, to one or more persons receiving NHS-funded care.</td>
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<tr>
<td>Moderate</td>
<td>Moderate: Any patient safety incident that resulted in a moderate increase in treatment and which caused significant but not permanent harm, to one or more persons receiving NHS-funded care.</td>
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<tr>
<td>Severe/major</td>
<td>Severe: Any patient safety incident that appears to have resulted in permanent harm to one or more persons receiving NHS-funded care.</td>
</tr>
<tr>
<td>Death/catastrophic</td>
<td>Death: Any patient safety incident that directly resulted in the death of one or more persons receiving NHS-funded care.</td>
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*Minor treatment is defined as first aid, additional therapy, or additional medication. It does not include any extra stay in hospital or any extra time as an outpatient, or continued treatment over and above the treatment already planned. Nor does it include a return to surgery or re-admission.*

*Moderate increase in treatment is defined as a return to surgery, an unplanned re-admission, a prolonged episode of care extra time in hospital or as an outpatient, cancelling of treatment, or transfer to another area such as intensive care as a result of the incident.*

*Permanent harm directly related to the incident and not related to the natural course of the patient’s illness or underlying condition is defined as permanent lessening of bodily functions, sensory, motor, physiologic or intellectual, including removal of the wrong limb or organ, or brain damage.*

*The death must relate to the incident rather than to the natural course of the patient’s illness or underlying condition.*
Root Cause Analysis

A fundamental aspect of the MSO role is to lead or at least be involved in investigating medication safety incidents. One of the tools to aid the investigation process is conducting root cause analysis (RCA) to ‘identify how and why patient safety incidents happen...and to identify areas for change and to develop recommendations which deliver safer care for our patients.’

The National Patient Safety Agency produced a series of 'how to' tools, templates, guidance notes, eToolkit as well as educational training materials to support individuals in conducting RCAs.

NPSA seven steps to patient safety:
http://www.nrls.npsa.nhs.uk/resources/collections/seven-steps-to-patient-safety/
[accessed 28th July 2016]

The information, tools and training materials are still available on the internet:

Quality Improvement Tools

Improving and learning from incidents is core to the MSO role. If changes need to be made, these should be planned with the involvement of relevant stakeholders and then assessed for impact.

Quality improvement tools allow interventions to be planned and tested on a small scale. They enable a systematic approach that can be applied quickly often with minimal resources.

1. Quality improvement made simple.

2. NHS Scotland Quality Improvement Hub.
Being effective

How does all this translate to the daily job? What do you need to do to be effective, and how will you demonstrate that you are?

As the MSO, you should be leading or involved in the following areas within your organisation.

✓ Pro-active risk assessment and analysis using tools such as Failure Modes Effect Analysis and Fault Tree Analysis.
✓ Liaising with managers and senior doctor and nursing colleagues to ensure that the organisation infrastructure enables dissemination of learning as well as improvement strategies.
✓ Setting the strategy and vision for medication safety within your organisation

A suggested week in the life of....

The alert outlines the roles and responsibilities of MSOs. However, these may need to be adapted depending on your sector of practice. The following sections provide suggested tasks and activities that MSOs from different sectors may undertake to be effective in their roles.
<table>
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<th>Day 1</th>
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<tr>
<td>Check all the commissioned organisations for the CCG to ensure that they have identified an MSO and that they have an appropriate committee structure to enable learning from errors and implementation of actions to minimise future errors.</td>
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<tr>
<td>Ask organisations for regular updates on the number and frequency of errors reported to the NRLS. [This in the context that reporting of errors is a positive indication of a safety conscious organisation].</td>
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<td>Ask for the ratio of harm/no harm reporting as indicated in the Medicines Optimisation Dashboard to be reported, say, three monthly to the CCG MSO and for there to be an (at least) annual event where the trends in this metric are discussed. [The absolute value should not be the issue; the trend in the ratio metric for a learning organisation should be reducing with time. If it is increasing then there may be issues to investigate].</td>
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| Ensure that organisations are comfortable with involving/advising the CCG MSO in actions that are being taken locally to minimise error. If these might have a national implication, then the CCG MSO is empowered to raise this nationally through the Medication Team for Patient Safety at NHS Improvement. [It is not the role of the CCG MSO to undertake individual RCAs or chase individual healthcare practitioners who have been involved in a medication patient safety incident.]

<table>
<thead>
<tr>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write up the safety metrics and the nature of engagement with organisations for a 3 monthly running report to the CCG. Prepare to present the findings, themes and specific learning points to the MSO Web Event.</td>
</tr>
</tbody>
</table>
A Community Pharmacy MSO

by Lucy Morton, Clinical Governance Manager, Pharmacy Voice

Monday

Daily check of internal incident reporting system to:

- Follow up with pharmacies that have ‘open’ incidents as they may require further action centrally. This could include reviewing our SOPs and policies or contacting the patient/GP/Care Home.
- Liaise with patients who have been affected by dispensing incident to ensure they are dealt with appropriately and understand our incident investigation and learning policy.
- Picking up with those pharmacies that have not reported anything in the last 3 months to ensure they understand the importance of incident and near miss reporting recording as the cornerstone of the clinical governance policy and to highlight the safety agenda in their store.

Tuesday

Clinical Governance visits to pharmacies to include review of their in-store processes and safety culture. Review near misses and dispensing incidents as a team to discuss learning and how processes may be improved in the pharmacy.

Wednesday

Attend the Pharmacy Voice Medicine Safety Officer Meeting to share learning across the whole of community pharmacy with all multiplies and independent pharmacies being represented. These meetings are important in sharing the learning around patient safety in community pharmacy and agreeing best practice to improve safety in all our stores.

Thursday

Attend meetings around new services, products or promotions within our company that may impact on patient safety and be the voice for safety across the healthcare department.

Friday

Create monthly clinical excellence newsletter and send nationally to all pharmacies. The newsletter contains a range of information but always has patient safety at its core with sharing:

- Key learning from internal and external incidents
- Best Practice tips from Pharmacy Voice
- Any patient safety alerts

Send off monthly report to the NRLS.
A mental health MSO – where to start?

by Vanessa Redmond, MSO, South West London and St George’s Mental Health NHS Trust

Risk governance

- Get to know your risk and governance team. Get access to the back end of your incident reporting system to empower you to generate your own medicine incident reports.
- Check how your Trust is doing compared to other Trusts in terms of reporting rates and level of harm.
- Know the journey of a medicine incident from when it is reported on the ward/team to when it is signed off to the NRLS. Check the correct people are being notified of medicines errors.
- Where possible try to get the final accuracy check of medicine errors so you can ensure all incidents are being risk rated correctly and you can see what ward/team managers are documenting on action plans. Intervene/recommend actions where needed. This could require additional resource/help of, for example, an experienced band 7.

Safe Medication Practice Committee/Trust SI group

- Is there a forum where safe medication practice is discussed and has the correct membership and terms of reference. If not, set one up. Ensure ownership at Board level (Medical Director).
- Attend the Trust Serious Incident (or equivalent) group where SIs are initially discussed and the decisions are made as to at what level incidents should be investigated.
- Check the RCA template and ensure there are prompts to check for medicine contributing factors, and for the investigator to send the RCA to a senior pharmacist for input/comment.

Quarterly medicine incident reports/learning

- Produce quarterly medicine incident reports that fit into your governance structure with an action plan that enables lessons to be shared from report trust wide. Get ownership of actions by senior nurses and doctors. These reports can then be taken to local directorate groups for shared learning. Use this intelligence to issue trust wide risk alerts/memos on safe medication practices. This can also be shared externally e.g. an interface prescribing forum to share learning with CCGs.
- Go to community nurses forums/ward managers meetings to ensure they know who you are and what you are doing with medicine errors.
- Set up a ‘medicine champion’ role for a nurse on each team/ward. This gives you a link and empowers the nurse to share learning with the team following a medicine error.
How will you know whether you are being effective?

For any initiative, evaluation and demonstration of effectiveness is imperative. This is especially the case for the MSO role, which is relatively new and has a limited evidence base.

To make your mark as the MSO and to show the impact you have within your organisation and beyond, remember to:

- Use the title! As well as being the MSO, you may have other roles and titles. However it is important to publicise and use the title of MSO. It gives you the authority and identity to lead on medication safety matters and is recognized nationally. Even when you are collaborating with others, it is important to emphasise the MSO title. Publicity and branding are important;
- Monitor and measure the outcomes of any interventions that you implement. This may include feedback from participants of education and training sessions, or actual patient outcome data; and,
- Publish any initiatives that have resulted in patient safety improvement. You can publish the outcomes within your organisation, as presentations to the MSO web event, at national and international conferences and as manuscripts in peer reviewed journals.
The last words

I hope that this handbook provides you with some practical tips and suggestions, no matter what your starting point is in the MSO role.

It is intended to be an evolving resource by an MSO for other MSOs, so please feel free to send through any feedback, comments and suggestions.

I wish you every success in the MSO role!

*With thanks to: David Gerrett, Lucy Morton, Vanessa Redmond and Carina Livingstone*

Yogini Jani

Medication Safety Officer & Consultant Pharmacist
UCLH NHS Foundation Trust | NHS Specialist Pharmacy Service
September 2016
Glossary

Adverse drug reaction – is defined as, ‘a response to a medicinal product that is noxious and unintended effects resulting not only from the authorised use of a medicinal product at normal doses, but also from medication errors and uses outside the terms of the marketing authorisation, including the misuse, off-label use and abuse of the medicinal product’.

Medication error – any patient safety incident where there has been an error in the process of prescribing, preparing, dispensing, administering, monitoring or providing advice on medicines.

Patient safety incident - any unintended or unexpected incident which could have, or did, lead to harm for one or more patients receiving NHS-funded healthcare.

Serious incidents- events in health care where the potential for learning is so great, or the consequences to patients, families and carers, staff or organisations are so significant, that they warrant using additional resources to mount a comprehensive response.
# Appendix 1 - NRLS codes for medication

There are two main categories as shown below.

<table>
<thead>
<tr>
<th>REFERENCE CODE</th>
<th>SECTION NAME</th>
<th>QUESTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD01</td>
<td>What Happened?</td>
<td>At what stage during the medication process did an actual or potential error occur?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AC (Acute)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Prescribing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Preparation of medicines in all locations / dispensing in a pharmacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Administration / supply of a medicine from a clinical area</td>
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<td></td>
<td></td>
<td>&gt; Monitoring / follow-up of medicine use</td>
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<td></td>
<td></td>
<td>&gt; Advice</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Supply or use of over-the-counter (OTC) medicine</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Other</td>
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<table>
<thead>
<tr>
<th>REFERENCE CODE</th>
<th>SECTION NAME</th>
<th>QUESTION</th>
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<tbody>
<tr>
<td>MD02</td>
<td>What Happened?</td>
<td>For this Patient Safety incident involving medicine, please select the appropriate description:</td>
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<tr>
<td></td>
<td></td>
<td>AC (Acute)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Adverse drug reaction (when used as intended)</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Contra-indication to the use of the medicine in relation to drugs or conditions</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Mismatching between patient and medicine</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Omitted medicine / ingredient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Patient allergic to treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Wrong / omitted / passed expiry date</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Wrong / omitted patient information leaflet</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong / omitted verbal patient directions</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong / transposed / omitted medicine label</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong / unclear dose or strength</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Wrong drug / medicine</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong formulation</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong frequency</td>
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<tr>
<td></td>
<td></td>
<td>&gt; Wrong method of preparation / supply</td>
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<td>&gt; Wrong quantity</td>
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<td>&gt; Wrong route</td>
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<td>&gt; Wrong storage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; Unknown</td>
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</tbody>
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