Medication Incidents

- Causes and Handling of errors (Traditional vs System approach)
- Learning & Improvement
- Reporting

Dr David Marshall, Oct 18
Health Improvement Adviser (Pharmacy)
44,000-98,000 people die each year from medical errors [in hospitals] — the eighth leading cause of death in this country — higher than motor vehicle accidents (43,458), breast cancer (42,297), or AIDS (16,516).

About 7,000 people per year die from drug errors alone in hospitals — more deaths than work-related injuries.

Total number of US deaths annually – 2.5 million
Total iatrogenic Body Count: 250,000 deaths [Starfield, JAMA, vol 4, 483-485 (2000)] ie 10%

“DOCTORS ARE THE THIRD LEADING CAUSE OF DEATH IN US!”
Traditional Error Prevention

If you follow the rules you cannot have an accident

• Make/Enforce rules
• Punish violators
  • Fire them
  • Suspend them
• Retrain them
Error Prevention by Fixing the People

- Be more:
  - Vigilant
  - Careful
  - MORE, MORE, MORE...
“The single greatest impediment to error prevention is that we punish people for making mistakes”

Dr Lucian Leape, Professor, Harvard School of Public Health
But
We've
ALWAYS
ALWAYS
Done
It
This
Way
"Every system is perfectly designed to achieve exactly the results it gets"

Donald Berwick (Institute of Healthcare Improvement)
Aim: Scotland has a consistent national approach to learning from adverse events through reporting and review, which supports service improvements and enhances the safety of our healthcare system for everyone.

“The best way to reduce harm ... is to embrace wholeheartedly a culture of learning.”

Learning from adverse events through reporting and review
A national framework for Scotland
July 2018
What happened?
How do we prevent it in the future?
What can we learn?

Person Model

System/Human Factors model

Who did it?
Who is to blame?

What happened?
How do we prevent it in the future? What can we learn?
What is human factors (HF)?

study of factors that affect how people perform, think, communicate, and interact with technology in complex sociotechnical systems (like HC)

- physical environment
- task characteristics
- individual characteristics
- organisational or management systems
INCIDENT DECISION TREE

Work through the tree separately for each individual involved

Start Here

Deliberate Harm Test
Were the actions as intended?

YES
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Suspension
• Referral to police and disciplinary/regulatory body
• Occupational Health referral

NO
Advise individual to consult Trade Union Representative
Consider:
• Occupational Health referral
• Reasonable adjustment to duties
• Sick leave

Incapacity Test
Does there appear to be evidence of ill health or substance abuse?

YES
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Occupational Health referral
• Reasonable adjustment to duties
• Sick leave

NO
Advise individual to consult Trade Union Representative
Consider:
• Occupational Health referral
• Reasonable adjustment to duties
• Sick leave

Incapacity Test
Were adverse consequences intended?

YES
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Occupational Health referral
• Reasonable adjustment to duties
• Sick leave

NO
Advise individual to consult Trade Union Representative
Consider:
• Occupational Health referral
• Reasonable adjustment to duties
• Sick leave

Foresight Test
Did the individual depart from agreed protocols or safe procedures?

YES
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Corrective training
• Improved supervision
• Occupational Health referral
• Reasonable adjustment to duties

NO
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Referral to disciplinary/regulatory body
• Reasonable adjustment to duties
• Occupational Health referral
• Suspension

NO
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Referral to disciplinary/regulatory body
• Reasonable adjustment to duties
• Occupational Health referral
• Suspension

Substitution Test
Would another individual coming from the same professional group, possessing comparable qualifications and experience, behave in the same way in similar circumstances?

YES
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Referral to disciplinary/regulatory body
• Reasonable adjustment to duties
• Occupational Health referral
• Suspension

NO
Consult NCAA or relevant regulatory body
Advise individual to consult Trade Union Representative
Consider:
• Referral to disciplinary/regulatory body
• Reasonable adjustment to duties
• Occupational Health referral
• Suspension

System Failure
Review system

Highlights any System Failures identified

NO
NO
NO
NO
NO
Elements of a safety culture

Open culture
Just culture
Reporting culture
Learning culture
Informed culture

The organisation has learned from past experience and has the ability to identify and mitigate future adverse events because it:

• is committed to learn safety lessons
• communicates learning outcomes to colleagues
• remembers them over time
• undertakes trend analysis and develops appropriate action plans
• uses learning from adverse events to promote a positive safety culture
Understanding why things go WRONG
(Understanding why things go RIGHT)

Trying to DESIGN a system that supports people better and makes it easier to do the right thing more often
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Figure 13-2. The human factors in aircraft maintenance most commonly leading to accidents.
What is the subject of the notification?

I checked the previous weeks audit and the medication received to ensure that the figure was correct and service user is down one 7.5mg tablet of zopiclone

I reminded staff that in my absence the form should have been sent to another manager for reporting to care inspectorate and have also asked staff to administer medication in pairs at all times when possible

Myself and team leader are planning more medication training to try and alleviate controlled medication errors.
Small Sample Stock Reconciliation

% of Stock Accurately Reconciled

Week
at 10.30pm…staff had administered a second dose of Zomorph within a 45-minute period. [First time CD book signed but not MAR, second time MAR but not CD book]

- Immediate contact was then made with NHS 24 to seek advice
- Family contacted, appreciated honesty and were understanding

- [Second] Staff member withdrawn from Administration of Medications, Knowledge and competence will be reassessed. Telephoned pharmacy 28th July 2018 for further training
- All staff to follow controlled drug guidelines and to ensure they refer to controlled drug register.
- Emergency social work contacted for advice … is satisfied with action - NMC contacted
Find out why the error happened (both nurses) in an open culture that allows them to learn and adapt. Were they rushed, complacent, interrupted?

Interventions could include
• a short SoP laminated inside the CD cabinet as reminder
• targeted training to all staff on importance of recording with reflective practice such as from people involved here?
Staff submitted a midcycle synchronisation request for additional medication
Resident XX 12 Olanzapine 15 mg 1@ night
Resident YY 12 Atenolol 25 mg 1@ 0800hrs

The same evening both medications arrived labelled for Resident YY

Staff approved the medications on eMar, resulting in 12 days medication being wrongly administered.

YY died a few weeks later with cause of death recorded as suspected MI
Many midcycle requests for medication because the GP surgery tends to send only a supply for 28 days despite what's requested. **WHY?**

The GP faxed the prescription requests to Pharmacy.

Pharmacy normally dispense from the fax and home would get medicine with a copy of the fax. In this case, home did not receive copy of fax. **WHY?**

When Pharmacy dispense the home’s eMAR system automatically updates. Normal protocol is that this has to be “activated” by the home on receipt of written confirmation of the dose/medicine supply eg copy of fax or prescription.

However, in this case the staff clicked to activate the supply without that confirmation. **WHY?** - When asked, staff said they didn’t query the olanzapine for resident YY because the resident had been displaying stress and distress behaviour in recent weeks, and so felt olanzapine was there to treat that.
Making Improvement Happen 1: Reduction in medicine incidents

- Build will and conditions for change
- Understand current system
- Develop aim and change theory
- Identify specific change ideas, test and refine in context
- Implement locally, using PDSA cycles to build in sustainability
- Scale up / spread where relevant

Leadership, project planning and management, communication and measurement
Building Will

• **Focus on the ‘big stuff’** – things that matter to people and those caring for them
  • Evidence base – known gaps in reliable delivery leading to poorer outcomes for people
  • Clinical/professional engagement & leadership – peer pressure
  • **Leaders describe the ‘what’** – not the ‘how’
  • **People who do the work, design the work**
  • Make data visible – are we as reliable as we think?
  • **Strategic/political support**
So… it’s important to recognise

What makes people tick?

So… what do you do when no one’s taking to all of your well-researched, well-intended changes? - Enter the Model For Improvement (MFI)
The provider must evidence that arrangements in place to support the safe management and administration of medication are effective in mitigating the risk of medication errors. This must include:

i. An agreed charter to reduce errors by X% within Y months.
ii. A system to measure the rate of medication errors
iii. A system to test ideas for improvement in reducing medication errors

This is to comply with: Scottish Statutory Instruments 2011 No 210 Welfare of users 4. - (1) A provider must - (a) make proper provision for the health, welfare and safety of service users.

Timescale:
Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Act

Plan

Study

Do
What are we trying to accomplish?

How much

50%

What...

Reduction in Medicine Incidents

Where?

In Care Home

By When

By 29 January 2018
Without data you are just another person with an opinion

W. Edwards Deming
6 OOS Episodes