

Primary Care Trigger Tool

Providing new patient safety metrics for
primary care

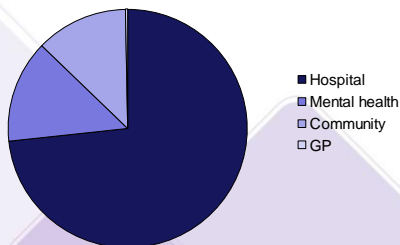
So many questions !

- How many of our patients are harmed?
- Which areas need most attention ?
- What's causing adverse events ?
- What changes could we implement ?
- Are the changes an improvement ?



What do we know?

Patient safety reports 2003-June 2009



What do we know?

- size of the problem
 - 1:10 admissions
 - 1:300 consultations
 - 25% of >75s experience healthcare associated harm each year
 - 5% of admissions = preventable adverse drug events
- impact of safety incidents
 - 73% of adverse events in >75s required some intervention

Why metrics for patient safety?

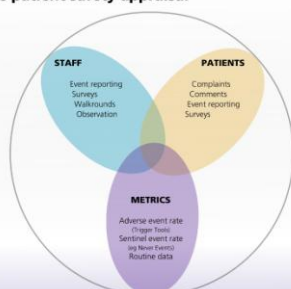
STAFF:
understand the
cause of safety
incidents.

Staff reports tend to
focus on human
errors and the most
serious harms.

Surveys,
walkarounds and
observation focus on
culture and process
problems.

Not useful for
measuring safety.

360 degree patient safety appraisal



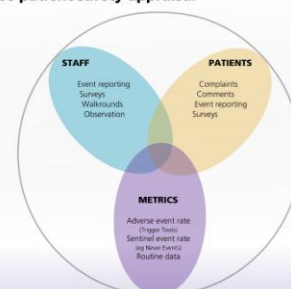
Why metrics for patient safety?

PATIENTS:
understand the
cause and impact of
safety incidents.

Patients may detect
issues not reported
by staff, eg errors in
communication and
interpersonal care,
staff response to
safety incidents and
the impact on
patients.

Not useful for
measuring safety.

360 degree patient safety appraisal

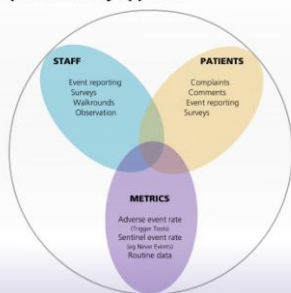


Why metrics for patient safety?

METRICS:

measure patient safety (and improvement). Measure rate of harm, identify the most common safety threats and track improvement over time (eg Trigger Tools). They may detect events not reported by staff or patients. Not primarily useful for understanding safety.

360 degree patient safety appraisal



A metric of patient safety

Focus on actual patient harm

How many patients had an adverse event last year?

What are the common areas of harm?

Have our changes succeeded in reducing the incidence of harm ?

Primary Care
Trigger Tool



The case for casenote review

Staff reporting

- subjective
- focus on error
- focus on memorable events (rare)
- v small numbers
- variable over time

Casenote review

- objective
- focus on outcomes
- focus on common events
- large numbers
- reliable over time

Trigger Tools

- casenote review is a 'gold standard' for detecting actual patient harm
- it is too time-consuming for everyday use (eg senior doctor, 20-40 minutes per patient)

Trigger Tool approach

1. filter out patients unlikely to have experienced harm
2. structured clinical review, targeted where harm most likely to be found

- ✓ feasible to take monthly random sample of patient casenotes
- ✓ produce run / SPC charts
- ✓ track improvements over time

Creating & Refining a Trigger Tool

- Adverse event list
- Trigger long list
- Alpha version(s) Trigger Tool
- Beta version Trigger Tool
- Public version(s)



Insert date/time

Trigger Tools

- Acute hospital adapted from IHI Tool
- Paediatrics launched Jun 09
- Primary Care launched Sept 09
- Mental health in development
- Community Hospital in development
- Community Nursing in development

NHS Institute's trigger tool development programme uses a standard academically validated methodology, in close collaboration with frontline clinical teams



Primary Care Trigger Tool

Developed by NHS Institute, in partnership with 32 GP practices across England

Analysis of 4400 casenote reviews

1400 adverse events

25% resulting in hospitalisation/permanent harm/death

Independent expert academic review

→ **new PCTT** 81% sensitivity,
4 min/pt



Step-by-step A. Sample

List of all patients > 75 years

Place in random order

eg day of birth / alphabetical

Each month, select 25-100 for PCTT review

don't select same patient twice in one quarter

Review the past 3 months



Step-by-step B. Review

Sample

50 patients

1. Search for triggers [clerical]

- unambiguous proxy indicators of harm risk

NO

30 patients

0 events

YES

20 patients

2. Search for adverse events [clinical]

- iatrogenic harm events

NO

10 patients

0 events

YES

10 patients

12 events

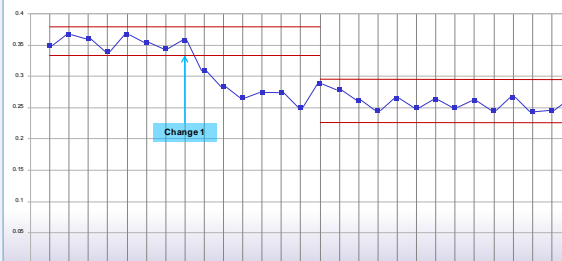
Event rate = $12 / 50 = 0.24$



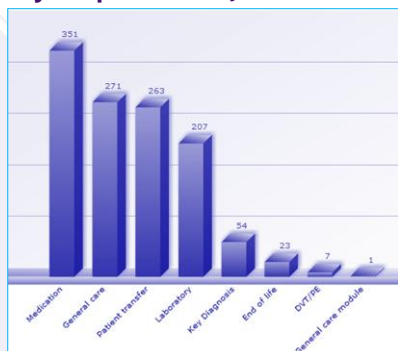
Step-by-step C. Analyse

Adverse event rate

Monthly sample of patients provides mean adverse event rate for practice



Step-by-step C. Analyse



Primary Care Trigger Tool

Medication

Repeat medication discontinued
Prescribing of opioid analgesia
Prescribing oral NSAID/COX2
Prescribing warfarin
Prescribing insulin
Prescribing methotrexate
Prescribing amiodarone

General Care

Seen > once in 2 days
Fall if age > 75
Fracture if age > 75
Pressure sore or ulcer
Urinary catheter in situ

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Proven DVT or PE

MRSA positive
C.diff positive
Positive wound/skin swab
eGFR ≤ 20

Readmission to hospital within 2 weeks of discharge

Na+ <130 or >150 mmol/l
K+ <3.5 or >5.5 mmol/l
INR <2 or >5
Haemoglobin <9g/dl

Death

New diagnosis of CVATIA
New diagnosis of acute confusional state

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INR > 5 is a trigger on the PCTT

Many patients with an INR > 5 come to no harm

This is not an adverse event (even if results from error)

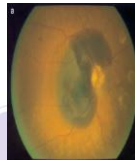


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Retinal bleed caused by Warfarin → INR > 5

Patient has come to harm

This is an adverse event (whether result of error or not)



| <input type="button" value="Send form"/> | | | | |
|--|--|--|--|-------------------------|
| PATIENT AGE: <input type="text"/> ^a years ^c Month DATE OF REVIEW: <input type="text"/> (dd-mm-yyyy) | | | | |
| Medication | Trigger | Adverse Event | Severity of Adverse event | Comment on this trigger |
| <input type="checkbox"/> Rgt med disc | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Cypod analgesia | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Warfarin | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> NEMAD/CO2 | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Insulin | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Methotrexate | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Amiodarone | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| General care | Trigger | Adverse Event | Severity of Adverse event | Comment on this trigger |
| <input type="checkbox"/> Fall >75 | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Fracture > 75 | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Press. controller | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |
| <input type="checkbox"/> Catheter | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="checkbox"/> No <input type="checkbox"/> Yes | <input type="text"/> <input type="button" value="NA"/> | <input type="text"/> |

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- raises awareness of patient safety
- identifies areas of waste
- highlights problems with quality and productivity
- drives improvement



Primary Care Trigger Tool - impact

- Users report...
 - takes about 4 min per patient
 - detects 'everyday' incidents which get overlooked by staff
 - amazement that so many patients experience harm
 - fresh passion to improve patient safety

"I actually think change will come about now in our practice ... and we'll know if we're making an improvement"



For more information:

www.institute.nhs.uk/safercare/GP