

# **Developing a Paediatric Component of the Scottish Patient Safety Programme**

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## **6 Dimensions of Quality**

- **Safe**
- **Timely**
- **Patient Centred**
- **Effective**
- **Efficient**
- **Equitable**

# Adverse Events in Hospital

- 3.7% Harvard 1991
- 16.6% Australia 1995
- 10.8% London 2001

50% PREVENTABLE



3 million bed days in UK

£1 billion per annum in UK



# Pioneering Patient Safety



Making acute care  
safer in NHS Scotland



# Scottish Patient Safety Alliance- Key Partners

- **Scottish Government**
- **NHS Scotland**
- **QIS**
- **Royal Colleges and Professional bodies**
- **World leading experts on patient safety**
- **Patients**
- **NHS Education**
- **HPS**

# Scottish Patient Safety Alliance

- **Scotland developing a whole healthcare system approach**
- **A strategic priority for NHS Scotland**
- **An explicit and tested approach to improving patient safety**
- **Building on foundations laid through audit, clinical effectiveness and clinical governance**
- **Alignment with wider NHS QIS Patient Safety work**

# Building on experience

- **Tried and tested interventions**
- **Improve safety and reliability of Boards and a safety focused culture**
- **Capacity and capability for improvement methodology**
- **Spread and sustainability**

# Outcome Aims

- 15% reduction in mortality
- 30% reduction in adverse events
- Reduce healthcare associated infections
- Reduce adverse surgical incidents
- Reduce adverse drug events
- Improve critical care outcomes
- Improve the organisational and leadership culture on safety
- Data for improvement



## Associated benefits

- **Reductions in length of stay**
- **Reduction in complaints**
- **Cost benefits**
- **Care is given in the right place at the right time and in the right way**
- **Increased improvement capability amongst staff**

## Model for Improvement



The Improvement Guide, API

# Scottish Patient Safety Programme

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- **Care Bundles**
- **Global Trigger Tool**

Care Bundles	Change Package Element
Critical Care	<p><b>Establish infrastructure</b></p> <ul style="list-style-type: none"> <li>•Daily goal sheets *</li> <li>•Daily multi-disciplinary rounds *</li> </ul> <p><b>Infection Prevention</b></p> <ul style="list-style-type: none"> <li>•Ventilator bundle * with adaption</li> <li>•Central line bundle *</li> <li>•General infection prevention practices *</li> <li>•Glucose control (ITU then to HDU)</li> </ul>
General Ward	<p><b>Risk Identification and Response</b></p> <ul style="list-style-type: none"> <li>•Rapid response (Outreach) teams *</li> <li>•Early warning system * Children's one</li> </ul> <p><b>Infection Prevention –MRSA * with adaption</b></p> <p><b>Reliable care for Congestive heart failure</b></p> <p><b>Communication and Teamwork</b></p> <ul style="list-style-type: none"> <li>•Safety briefings *</li> <li>•Communication tools (e.g. SBAR) *</li> <li>•Prevention pressure ulcers</li> </ul>
Leadership	<p><b>Infrastructure to support safety *</b></p> <p><b>Walkrounds *</b></p> <p><b>Safety a strategic priority *</b></p>
Medicines Management	<p><b>Reconciliation *</b></p> <p><b>Anticoagulation , Insulin,</b></p> <p><b>Conduct an FMEA on a high risk medication process</b></p>
Perioperative	<p><b>DVT Prophylaxis</b></p> <p><b>Continuity of Beta blockers</b></p> <p><b>SSI bundle *</b></p> <p><b>Team culture – briefings *</b></p>

## Other suitable care bundles

- Peripheral vascular catheter
- Establish daily goals
- Prophylactic antibiotics
- Patient temperature during operation

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# **Developing a Global Trigger Tool for Children**

# GTT - Background

- Under reporting of adverse events by conventional methods
- Triggers first described in 1970's
- Refined in 2000's to develop a “global trigger tool”
- Quantifies harm not error
- Tool for improvement

# Definitions

- Harm
  - “unintended physical injury resulting from or contributed to by medical care that requires additional monitoring, treatment or hospitalisation or that results in death”
- Adverse event severity



# Rules and Methods

- Small random sample of discharged patients with >24hour stay (20 per month)
- Review team
  - 2 reviewers
  - 1 medic
- Maximum 20minutes per case note
- Record triggers and assess harm
- Plot on control chart

# The “UK” Paediatric Global Trigger Tool

- Developed from adult tool
- NHS Institute of Innovation and Improvement/GOSH
- English paediatric centres
- Scotland recently invited

**PAEDIATRIC GTT SMALL TEST OF CHANGE (cycle 3 & 4) February 2009**  
**Paediatric Global Trigger Tool (UK version)**

Trigger		Trigger Present ✓	AE 1=yes 0= no	Brief description with severity rating if AE (E-I)
<b>General care module</b>				
PG 1	Early warning score or baseline observations missing or incomplete OR score/observation requiring response			
PG 2	Pressure sore or tissue damage			
PG 3	Readmission to hospital within 30 days			
PG 4	Unplanned admission			
PG 5	Cranial Imaging			
PG 6	Respiratory/Cardiac arrest/crash call			
PG 7	Diagnostic imaging for embolus/thrombus +/- confirmation			
PG 8	Complication of procedure or treatment			
PG 9	Transfer to higher level of care (inc admission to specialist unit, ICU/HDU)			
PG 10	Hypoxia O <sub>2</sub> sat <85%			
PG 11	Cancelled elective procedure/delayed discharge			

<b>Surgical care module</b>				
PS 1	Return to theatre			
PS 2	Change in planned procedure			
PS 3	Surgical site infection			
PS 4	Removal/Injury or repair of organ			

<b>Intensive care module</b>				
IP 1	Readmission to ICU or HDU			

HIGHEST SCORING ADVERSE EVENT – Tick One only		
Category E:	Contributed to or resulted in temporary harm to the patient & required intervention	
Category F:	Contributed to or resulted in temporary harm to patients & required initial or prolonged hospitalisation	
Category G:	Contributed to or resulted in permanent patient harm	
Category H:	required intervention to sustain life	
Category I:	Contributed to the patient's death	

\* Some Adverse Events will be picked up by more than one trigger – don't record same Adverse Event twice (even if it appears on form more than once)

SUMMARY		
Patient identifier	No of triggers	

**Name of Trust:**  
**Adverse Event (AE) = measure of harm**

Trigger		Trigger Present ✓	AE 1=yes 0= no	Brief description with severity rating if AE (E-I)
<b>Medication module</b>				
PM 1	Vitamin K given (except for routine neonatal dose)			
PM 2	Naloxone given			
PM 3	Flumazenil given			
PM 4	Glucagon or glucose ≥ 10% given			
PM 5	Chlorphenamine given			
PM 6	Anti-emetic given			
PM 7	IV Bolus ≥ 10ml/kg colloid or crystalloid given			
PM 8	Abrupt medication stop			

<b>Lab test module</b>				
<b>Haematology</b>				
PL 15	Thrombocytopenia (<100)			
PL 1	High INR (>5) or aPTT >100 sec			
PL 2	Transfusion			
PL 3	Abrupt drop in Hb or Hct (>25%)			
<b>Biochemistry</b>				
PL 4	Rising urea or creatinine (>2x baseline)			
PL 5	Na <sup>+</sup> <130 or >150			
PL 6	K <sup>+</sup> <3.0 or >6.0			
PL 7	Hypoglycaemia (<3mmol/l)			
PL 8	Hyperglycaemia (>12mmol/l)			
PL 9	Drug level out of range			
<b>Microbiology</b>				
PL 10	MRSA bacteraemia			
PL 11	C. difficile			
PL 12	Vanc resistant enterococcus			
PL 13	Nosocomial pneumonia			
PL 14	Positive blood culture			
PO 1	Other (specify)			

SUMMARY		
Date of admission	Reviewers ID	

# “UK” Discussion – February 2009

- Representative from NHS Lothian and NHS GG&C
- Issues with:
  - Randomisation
  - Definitions
  - Limits
  - Additional triggers
  - Microbiology
- Await edited/final GTT and definitions
- Further data collection

## Next Steps (England)

- Further data collection
- Web portal for data entry and analysis
- Investigate neonatal trigger tool
- National and local launch