Quality Improvement and Patient Safety – NHG Journey

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NHG Quality Journey

Integrated Care Framework
Enterprise Risk Management
Open Disclosure Framework
NHG MY Care Framework
JCI Accreditation
Clinical Collaboratives
Patient Safety Framework
Balanced Scorecard
Clinical Practice Improvement Program
Quality Framework
NHG Quality & Patient Safety Framework

Create a Safety Culture

DETECTION
• Voluntary Incident Reporting
• Clinical Review Program
• Patient Feedback
• Clinical Audit
• Administrative Data

ANALYSIS
• Sentinel Events
• Frequent Adverse Events
• Near Misses
• Clinical Outcomes Tracking Systems

IMPROVEMENT STRATEGIES
• Clinical Improvement Projects
• NHG My Care
• Organisation Learning & Training
• Sustain & Spread Best Practices

Evaluate Changes

OVERVIEW: QUALITY & PATIENT SAFETY PLAN

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<th>Detection &amp; Analysis</th>
<th>Improvement</th>
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<td>• Returns to ICU</td>
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<td>Dept Peer Review</td>
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<td>• Peripheral Venous Complications</td>
<td>Hospital Peer Review</td>
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<td>• Pressure Ulcers</td>
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<td>• Safety &amp; Risk Related</td>
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<td>• Security Related</td>
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<td>• Sharp Injury &amp; Body Fluid splash</td>
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<td>• Surgery &amp; Operating Room related</td>
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<td>HODs and Process Owners</td>
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Training & Organizational Learning | CPIP, NHG My Care, RCA & FMEA, Patient Safety Workshops, Teamwork & Communication, SBAR, TeamSTEPPS™, |
Patient Safety Strategy

Vision
Zero Preventable Harm

Aim:
50% Reduction in preventable AE every 3 years

How:
Work on high priority areas throughout all clinical units

- Safety Culture
- Medication Errors
- Hospital Acquired Infections
- Teamwork & Comms
- Procedural Errors
- Functional Issues

Detection of Problems

- Voluntary reporting
- BSC & KPIs
- Audits
- Patient Voice
- Staff inputs
- Reactive (RCA) & Proactive (FMEA)

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e-Hospital Occurrence Reporting (e-HOR)

- Ensure Confidentiality
- Tackle Fear of Reporting
- Systems Approach to Error Analysis
- Provide Incentives
- Leadership Support
- Make it easy

Click here to go to e-HOR

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eHOR Reporting Trends (Year 2005-2010)

BUILDING A CULTURE OF SAFETY!

Total eHOR Received

<table>
<thead>
<tr>
<th>Year</th>
<th>Total eHOR Received</th>
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<tr>
<td>2005</td>
<td>2053</td>
</tr>
<tr>
<td>2006</td>
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<td>2009</td>
<td>3440</td>
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<tr>
<td>2010</td>
<td>3425</td>
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- Teamwork & Communications
- eHOR process enhancement
- New web-based System Routing Rules
- Open and Fair Policy
- RCA Training
- PS Executive Walkabouts
- Hospital Tribune
- Improvement stories in Hospital Tribune
- Reward for highest reporting rates
- Pathology department actively reporting rejected specimen cases

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PATIENT SAFETY PROGRAMME

Principles:

– Systems approach to error management
  • Understand how errors are caused and role of humans
  • Redesign system to reduce the risk or its consequences.

– Emphasis on prevention, not punishment
  • Separate and transparent process for dealing with professional misconduct.

– Measurement for learning and improvement
  • Confidential, non-punitive reporting
  • De-linked from performance appraisal

– Develop a Culture of Safety
  • Think continuously about possibility of error
  • Expect the unexpected, react to minimise harm
  • Support everyone involved

TTSH Non-punitive Reporting Policy

• Hospital leadership explicitly acknowledges most errors are caused by System issues

• Use of tool to determine responsibility (Incident Decision Tree)

• Emphasis on learning and process improvement

• Supervisors and HODs will use a systems approach (RCA) to identifying underlying causes of an event
  - focus on processes and systems
  - built into e-HOR reporting process

ACTIONS SPEAK LOUDER THAN WORDS!
**Decision Tree for Determining Culpability of Unsafe Acts**

**spo,**

Were the actions as intended?  
- Yes  
  - Substance abuse with mitigation  
  - Diminishing culpability  
  - Blameless error  
  - Blameless error but corrective training, counseling needed  
- No  
  - Unauthorized substance?  
    - Yes  
      - Sabotage, malevolent damage, suicide, etc.  
    - No  
      - Medical condition?  
        - Yes  
          - Deficiencies in training & selection or inexperience?  
            - Yes  
              - Blameless error  
            - No  
              - Possible negligent error  
        - No  
          - Were procedures available, workable, intelligible and correct?  
            - Yes  
              - Pass substitution test?  
                - Yes  
                  - Possible reckless violation  
                - No  
                  - System-induced violation  
            - No  
          - History of unsafe acts?  
            - Yes  
              - Blameless error  
            - No  
              - Blameless error but corrective training, counseling needed  

**Patient Safety Officers**

- Advocate for Patient Safety to Management and Staff.
- Organisational change agents
- Involve actively in all Patient Safety initiatives

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Reason, J., Managing the Risks of Organizational Accidents
Patient Safety Leadership Walkabouts

Closes the gap between those who make or prevent error and those who make decisions to change the systems

Patient Safety Climate Surveys
Two-yearly staff surveys using AHRQ (Agency for Healthcare Research and Quality) Tool

Top Cultural Dimensions
- Hospital Management support for patient safety
- Organisational learning and Quality Improvement
- Teamwork within Units
- Units are actively trying to improve patient safety

Bottom Cultural Dimensions
- Non-punitve response by Supervisors
- Staffing
- Teamwork Across Units
- Handovers and Transitions
Clinical Practice Improvement Program (CPIP)

“Building improvement culture by teaching QI concepts and tools to clinicians in a way that is respectful of their needs.”

- Total Runs: 25
- Projects: 476
- Staff Trained: 1,122
- Extend beyond NHG to all of Singapore and region
Impact of CPIP over the years

CLINICAL PRACTICE IMPROVEMENT STORYBOARD

- Prompt Discharge
- Prompt Treatment
- Reduce Turnaround Time
- Reduce Waiting Time
- Reduce Unnecessary Consultations
- Reduce Schedule Disruptions

- Promote Early Ambulation
- Improve Treatment Outcome
- Promote Safer Utilization
- Improve "Take-Up" Rate of Programme
- Improve Pain Scores

- Reduce Cost
- Establish Better Communication
- Reduce Unplanned Admissions/Readmissions
- Reduce Inappropriate Use
- Reduce Waste

- Identify project
- Pre-workshop briefing
- CPIP Workshop

- Review evidence of problem worth solving
- Form project team & develop mission statement
- Attend CPIP Clinic 1

- Flow chart of process
- Identify root cause
- Brainstorm interventions

PRE-WORKSHOP
Discuss potential projects (1 week pre workshop)

POST-WORKSHOP
Present Mission statement, team composition & evidence worth solving (2 weeks)
Small test PDSA cycles

MID-POINT REVIEW

Continue PDSA

Attend CPIP Clinic 3

Sustaining improvement

FINAL REVIEW

Track up to 12 months and spread if appropriate

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BREAKTHROUGH COLLABORATIVE WORK

• Medication Safety Collaborative (Nov 03 - Sep 06)
• Critical Laboratory Results Collaborative (Apr 07 - Apr 09)
• Methicillin-resistant *Staphylococcus aureus* (MRSA) Collaborative (Jun 07 – Dec 2009)
• Prevent Harm due to High Alert Medications (Oct 2009)
Medication Safety Collaborative
Redesign Processes

- Standardised prescribing conventions and abbreviations
- Medication Reconciliation by Pharmacists
- Dedicated ICU Pharmacist
- Inpatient Anticoagulation Service with follow-on care in Outpatient Anti-Coagulation Clinic
- Standardisation of pumps and implementation of “Smart” Pumps
- Removal of concentrated electrolytes from ward stock
- Inpatient Pharmacy Automation System (IPAS): Inpatient Medication Unit Dosing and Bar Coding
- e-Prescribing Systems with closed loop e-Medication Administration
- Clinical Decision Support: Adverse Drug Event Alert and Surveillance System

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NHG MY CARE Framework

- **Timeliness**
  - Zero Needless Waiting
- **Human Development**
  - Zero staff dissatisfaction
  - 100% staff engagement
- **Quality**
  - Zero Preventable AE
  - Zero needless Pain
- **Cost**
  - Zero non-value
  - added activities

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44% reduction in wait time for 2D-ECHO
49% reduction in time to consent
UTI rate reduced from 17% to 2%
Cost Savings of $189K per annum

**Communicate With SBAR**

**BEFORE calling:**
1. Assess the patient
2. Review the chart for the appropriate doctor to call
3. Know the admitting diagnosis
4. Read the most recent medical & nursing notes
5. Have the chart in hand & be ready to report ALLERGIES, MEDICATIONS, IV FLUIDS, LAB & INVESTIGATION results

**SITUATION**
Your name & department, patient name & room number
- Problem(s) you are calling about
- Reason for admission & patient complaints (e.g., level of pain)
- Relevant physical findings, especially any change
- Pay special attention to mental status & skin temperature

**BACKGROUND**
- Time
- Parameters & patient complaints (e.g., level of pain)
- Relevant physical findings, especially any change

**ASSESSMENT**
- Give your CONCLUSIONS to the present situation.
- Diagnosis is not necessary
- If situation is unclear, state the body system that might be involved
- State the severity of the problem(s)
- If appropriate, state the problem(s) could be life-threatening

**RECOMMENDATION**
Say what you think would be helpful which might include:
- Add new medication
- Change existing medication
- Medical/specialist review
- Delayed response
- Patient’s condition deteriorates & needs urgent attention
- Attend treatment

**READ-BACK**
- Read-back the complete treatment order

**FOLLOW-UP ACTION**
1. Document change in condition, communication process, treatment & actions
2. Ensure timely response
3. Facilitate if:
   - Delayed response
   - Patient’s condition deteriorates & needs urgent attention
   - Attending doctor needs assistance

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**Improving Clinical Communications**

- SBAR
- Team STEPPS
- Integrated Resuscitation Drills
- Open Disclosure After a Poor Outcome

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Teamwork & Communication Dialogues

“...allow Drs an insight into nurses psyche and vice versa.”

“Interesting to see both sides of the story. Fatigue impairs performance.”

“…. something beyond SBAR. What else can we do besides this to improve communication and rapport?”

“learning experience to bring back to share with my colleagues.”

83% - interesting, enlightening, engaging
85% - session helpful in improving communication
73% - better/much better mutual understanding after session
87% - would recommend colleagues to attend similar sessions

Support Systems – Patients and Staff
Learning from the Best around the World ...

- Göran Henriks, Chief, Learning and Innovation, Jönköping, Sweden (2009)
- Dr Mats Bojestig, Chief Medical Officer, Jönköping, Sweden (2009)
- Dr Ross Wilson, Senior Specialist, Intensive Care Medicine, Royal North Shore Hospital (2002 - 2009)
- Dr Harvey Fineberg, President, The Institute of Medicine (2008)
- Dr John Toussaint, CEO, ThedaCare Inc (2008)
- Prof Joe Cooke, Chief Patient Safety Officer, New York Presbyterian Hospital Weill Cornell Medical Center (2008)
- Dr Jeffrey Levin-Scherz, Chief Medical Officer, Harvard Vanguard Medical Associates and Atrius Health (2007)
- Stephanie Thomas, Chief Operating Officer, Denver Health (2007)

NHG's Integrated Quality & Safety Plan (QSP)

- Apple Philosophy
- Structured Corporate Training
- Leadership Service Day
- Service Culture Drive
- Patient Feedback Management
- Sunny-Side Up
- ISO 14000
- Care of environment
- Aesthetic Programme: renovations, new buildings, maintenance
- HFMEA
- IQEHS
- ISO 9000
- ISO 18000
- Joint Commission International
- Clinical Governance Principles
- Clinical Pathways & Treatment Algorithms
- Clinical Information Technology
- Clinical Indicators and Benchmarking
- Credentialing and Clinical Privileges
- Episode Management and Discharge Planning
- Patient Safety Culture
- Operational Excellence
- Clinical Excellence
- Healing Environment
- Patient Safety Leadership Walkabouts
- Patient Safety Workshops
- Safety Climate Surveys
- Open & Fair Reporting
- Sentinel Event Review & Analysis
- Clinical Review Programme
- MyCare Framework (Lean principles)
- Breakthrough Collaboratives
Thank You