Quality improvement
Process/Cycle

Action orientated audit

By

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What is quality?

- Difficult-to-define words
- Understand at least in terms of concrete items such as cars, cameras and computers.
- We know it has something to do with goodness and value.
In terms of health care a number of dimensions of quality are talked about

* effectiveness,
* equity,
* humanity and
* efficiency
* value for money
Quality improvement involves assessing the current level of performance in health care and efforts to improve the provision of health care.
The Quality Improvement Cycle

- The process of quality improvement is based on a cycle, so conceptualized because it is never ending.
Choose a Topic

Some questions to ask in selecting a topic include the following:

- Is this something I / we have influence over or can do something about?
- Would dealing with this issue make a significant difference to the way we work?
- Why do I want to work on this?
Choose a Topic

- Will this process improve the experience and outcomes for our clients (patients)?

- Is success in improving quality in this area a possibility?
Form a Team

- QI is not a one man show.

- Health care is a team effort and only the team can bring about improvement.

- Who should be included in the team will depend on the topic chosen. Be as inclusive as possible.
Form a Team

- May consider a core team to lead and implement the process, and a broader support team (stakeholders) to include people of influence who are needed to support proposed changes.

- Include patients (clients) in the team wherever possible.
Set Standards

- Standards should be set towards one’s aim.

- Here evidence-based practice is important.
Standards

- Standards are *desired performance levels for criteria chosen by the team.*
- Criteria relate to
  - *structures* (staff and equipment),
  - *process* (activities taking place within the hospital), and outcomes (end points of care).
- Criteria should be *important, measurable* and clearly *related to quality of care.*
Gather Data

- This involves finding out what is happening at present in order to measure present practice against.
Assess Current Practice / analyze the gap

The team analyses the data gathered and compares it to the standards set in order to ascertain the gap between current practice and desired outcomes.
Assess Current Practice / analyze the gap

- Often it is difficult to understand why there is the gap between reality and ideals, and problem-analysis techniques are needed to analyse clearly what the reasons are.
- Such techniques include brainstorming, fish-bone analysis, tree diagrams, and others.
Develop and Implement a Plan

- Decide what needs to happen to move towards the standards set.

- Focus on solutions rather than rehashing the problem or finding scapegoats.

- Think laterally and creatively. Solutions may be unexpectedly simple.
Develop and Implement a Plan

- If the gap between the standards and the reality is wide, aim for an incremental improvement in quality, making a plan that has reasonable chance of success.

- The ultimate aim of the spiral is to reach the standards, but the aim of each cycle is simply to move towards those standards.
Develop and Implement a Plan

- Therefore the team sets specific objectives, with a practical action plan linked to each objective.

- These objectives must be realistic in terms of context and current level of quality.

- The plan based on these objectives must clearly specify who will do what by when.
Plan Must be **SMART**
- **S** - goals must be **Specific**
- **M** - targets should be **Measurable**
- **A** - goals should be **Attainable**
- **R** - goals must be **Realistic**
- **T** - targets should be **Time based**
Then **make it happen**. The core team needs the support and help of colleagues and management – the other stakeholders referred to earlier.

- Implementation and feedback should be continuous.

- The team should meet regularly to ensure that implementation is happening and to make adjustments to the plan as is needed.

- Flexibility in terms of the plan is important.
Evaluate

- The team needs to **review** whether there has been **any improvement** in the quality of the aspect of health care being addressed.

- To do that a **new** set of **data** needs to be **gathered** and **compared** with the previous data as well as the current and target standards.

- On the basis of this further plans are made and implemented and the spiral continues.
Emergency Medicine

- Triage
- Emergency trolley
- Protocol Implementation – Team approach to resuscitation – Paramedic, Nurse, EM medical practitioner, Support specialities, time keeper
Why triage?

- Approximate doctor-patient ratio is 1 Dr per 1776 patients
- Health services in South Africa is overburdened
- Waiting times in the emergency department are a source of dissatisfaction among patients.
- A reliable triage system can improve patient’s waiting times and subsequent morbidity and mortality
SORTING OUT TRIAGE

Northdale Hospital-PMB
Department Of Family Medicine
Final Year Medical Students - UKZN

A Family Medicine Quality Improvement Plan Initiative
Advantages of Triaging

- Expedites the delivery of time-critical treatment for life-threatening conditions.
- Ensures that all patients are appropriately categorised
- Improves patient flow
- Improves patient and health provider satisfaction
- Decreases overall length of stay
- Decreases waiting times
OBJECTIVES:

- Evaluate the current triage practice at the Northdale Hospital casualty department
- Examine the extent and accuracy of the theoretical and clinical knowledge regarding triage amongst the casualty department’s nursing staff.
- Improve the nursing staffs understanding and competency of triage.
- Develop and implement a user-friendly, proficient and cost-effective version of the Cape Triage System, for utilization by the casualty department nursing staff.
MOTIVATION

- Estimated 400 patients present to A & E unit daily at Northdale
- Lack of competent triage system
- Complaints from patients’
- No definitive guidelines present to prioritize patient
The Cape Triage Score: A new triage system South Africa. Proposal from the Cape Triage Group

- S B Gottschalk, D Wood, S DeVries, L A Wallis, S Bruijns On behalf of the Cape Triage Group
Cape Triage Group

- Convened Jan 2004
- Joint division of Emergency medicine, UCT / SU
  - Jan 2004
  - 32 registrars, 5 waiting posts
- Private & Public
- Pre-hospital & hospital
- Doctors, nurses, paramedics
  - 1 speech therapist…..
CTG: objectives

- Saw the need for triage in W Cape (SA) setting
- Develop a tool for hospital EU use
- Pre-hospital triage
CTS: Priorities

- **5 colours**
  - Red: Immediate
  - Orange: 10 mins
  - Yellow: 60 mins
  - Green: 4 hours
  - Blue: Dead
CTS: the basics

- 2 part tool
  - TEWS
  - Discriminators
- 3 versions
  - Adult, Child, Infant
- 5 colours
# TEWS: Adult

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<td>Mobility</td>
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<td>Stretcher/Immobile</td>
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<td>RR</td>
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<td>15-20</td>
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<td>HR</td>
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<td>SBP</td>
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<td>Temp</td>
<td>less than 35</td>
<td>35-38.4</td>
<td>38.5 or more</td>
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<td>AVPU</td>
<td>Alert</td>
<td>Reacts to Voice</td>
<td>Reacts to Pain</td>
<td>Unresponsive</td>
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<td>Trauma</td>
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Over 12 years / taller than 150cm
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<th>Colour</th>
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<tr>
<td>TEWS</td>
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<td>Target time to treat</td>
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<td>Shortness of breath - acute</td>
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<td>Coughing blood</td>
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<td>Chest pain</td>
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<td>Haemorrhage - uncontrolled</td>
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<td>Haemorrhage - controlled</td>
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<td>Seizure - current</td>
<td>Seizure - post ictal</td>
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<td>Presentation</td>
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<td>All other patients</td>
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<td>Dislocation - finger or toe</td>
<td>DEAD</td>
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<td>Fracture - closed</td>
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<td>Focal neurology - acute</td>
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<td>Level of consciousness reduced</td>
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<td>Psychosis / Aggression</td>
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<td>Threatened limb</td>
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<td>Dislocation - other joint</td>
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<td>Fracture - compound</td>
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<td>Burn over 20%</td>
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<td>Poisoning / Overdose</td>
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<td>Abdominal pain</td>
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<td>Hypoglycaemia - glucose less than 3</td>
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<td>Diabetic - glucose over 11 &amp; ketonuria</td>
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<td>Diabetic - glucose over 17 (no ketonuria)</td>
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<td>Vomiting - fresh blood</td>
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<td>Vomiting - persistent</td>
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<td>Pregnancy &amp; trauma</td>
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<td>Pregnancy &amp; PV bleed</td>
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Senior Healthcare Professional’s Discretion
CTS: step by step

Step 1
Measure vital signs and document the findings

Step 2
Take a brief history directed at the main complaint and document this

Step 3
Calculate the TEWS and document the total value

Step 4
Match the score to the list and observe the discriminator list for issues not picked up by the TEWS

Step 5
Document the triage code and act accordingly
CTS: benefits

- Reduced waiting times
  - 590 mins mean, to 30 mins red, 60 orange, 400 green

- Decreased EU length of stay

- Improved patient flow, decreased overcrowding in EU

- Reduction in mortality 2% to 0.7%

- Improved patient and health provider satisfaction
METHODOLOGY

- Standardized case scenarios and structured interview
- Assess pre-existing triage knowledge
- Endeavour to improve the efficiency and skills in triage
- Development of a new, user-friendly, comprehensive version of CTS
- Creation of clinical skills
REFERENCES

1. The South African Triage Society
2. The Cape Triage Score: A New Triage System for South Africa
   S B Gottschalk, D Wood, S DeVries, L A Wallis, S Bruijns On behalf of the Cape Triage Group
3. Should ambulant patients be directed to reception or triage first?
   S Goodacre, F Morrisa, B Tesfayohannesb and G Suttonb
   aNorthern General Hospital, Sheffield, UK
   b Woodgate Surgery, Wath, South Yorkshire, UK
4. Team Triage Improves Emergency Department Efficiency
   F Subash, F Dunn, B McNicholl and J Marlow Emergency Department, Royal Victoria Hospital, Belfast, UK
5. Patient satisfaction in emergency medicine
   C Taylor and J R Benger
   Emergency Department, Royal United Hospital, Bath, UK
Acknowledgements

- Final year medical students: Shakeel Kader, Rohan Lutchman, Ashandren Naicker
- Department of Family Medicine - UKZN
CRITERIA FOR MARKING THE Quality improvement projects

Layout and presentation 5 marks

- Introduction: 5 marks
- Setting
- Reason for study / project
- Topic chosen and description of the issue
- Literature

Methods 5 marks

- Design
- Aims and objectives
- Teams members- stating each member by name
- Standards and definitions
- Sampling
- Data collection
- Tools used
- Methods of analysis
- Limitations of project

Results: 5 marks

- Include all data and graphs
- Discussion: Analysis of the gap

Formulation and implementation of the plan 5 marks

- Prioritised plan of action
- Indicators: SMART- Specific, Measurable, Attainable, Realistic, Time bound
- Objectives, Targets, Activities,
- Timetable – who will do what by when
- People involved

6. Evaluation of the plan and comparison to initial results 5 marks

- Recommendations for ongoing Monitoring, Evaluation and Quality improvement.

TOTAL 30 marks
The end