Pre-Hospital Emergency Care Council

Small-scale Clinical or Research Audit Project (SCRAP)

Mission Statement

The Pre-Hospital Emergency Care Council protects the public by independently co-ordinating, developing, reviewing, regulating, and governing standards of excellence for the safe provision of quality pre-hospital emergency care.

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What is SCRAP?

PHECC are cognisant that there is a need for small organisations to carry out audit and research to support quality improvement in the organisation. SCRAP provides a vehicle to study what's happening in the licensed Provider's organisation and with the patient. SCRAP is a great way of driving change within a small organisation to improve quality.

In Ireland, quality is defined by the four quality domains set out in the Safer Better Healthcare Standards:

- **Person-Centred** - care that is respectful and responsive to an individual's needs and values and partners with them in designing and delivering that care.
- **Effective** - care that is delivered according to the best evidence as to what is clinically effective in improving an individual's health outcomes.
- **Safe** - care that avoids, prevents, and minimises harm to patients and learns from when things go wrong.
- **Better Health and Wellbeing** - care that seeks to identify and take opportunities to support patients in improving their own health and wellbeing.

Local clinical audit or research projects should always be conducted with some measurable item intended as an output. Benefits for the organisation and the patient may be extrapolated from a variety of audit activities that are applicable within the context of the licensed providers' normal activities.

Why SCRAP?

The Governance Validation Framework (GVF) requires licensed Providers to submit evidence of audit activities in the organisation within the Annual Medical Director's Report (AMDR). A licensed Provider may elect to produce a large scale formal clinical audit or may elect to conduct a small scale clinical or research audit project that does not involve a large or lengthy development phase and cycle of study to reach an outcome with an implementable result. SCRAP is conducted primarily to provide a benefit for the patient by the collection of small samples of data and review/analysis at local level with a view to implementing changes that might improve the situation and then measuring the result of those changes in an audit cycle. At the beginning of an audit or research project the project should have one or more objectives, these objectives should be SMART.

S	Specific – exactly what will you do?
M	Measurable – How will you know what you have done (should ideally be linked to a follow up evaluation of the project)
A	Achievable – Identify/choose a change to make that is achievable
R	Realistic/Relevant
T	Time-Bound - the project should ideally be completed by a certain date (there is usually more success when you write a specific date down, because it creates commitment)

An example of a SMART objective – '*By the 21st of October we will review all PCRs/ACRs, categorise each patient that we have dealt with in the last year ,and produce a report on treatments administered*'.

When to SCRAP

There are many different aspects of clinical or organisational practice that can be researched and/or audited. Here is a non-exhaustive list to help generate ideas for projects:

Possible Areas to Research/Audit	Why do that? (what outcomes would you want ?)
Risk Management	
Capacity to implement CPGs	
Patient mix/ CPGs applied	
Training needs analysis	
Complaints (is the process understood by all?)	
Evidence to support practice	
New developments in equipment/ Patient management	
Implementation of organisational policies	
Staff awareness and compliance with protocols	
Staff engagement	
Hand hygiene	
Incident reporting within the organisation	

Design of SCRAP

Studies may:

- be quantitative or qualitative
- test for differences or associations (correlations)
- be retrospective (anonymised) data or new data
- involve data collection by Provider or Practitioners and Responders
- involve independent projects or joint/collaborative projects with other Providers
- involve a service evaluation within a recognised framework or model

How to SCRAP

In SCRAP there are no set rules on the design of a study. The general rules of an audit cycle should be followed. It is important to plan what you are going to measure or research.

Decide upon what **structure, process, or outcome** you want to research/audit.

Structure	includes things like *(non-exhaustive list)* • clinical readiness and ability to implement CPGs • analysis of education and training and CPC • clinical risk management • staff development, etc.
Processes	includes things like *(non-exhaustive list)* • risk management • education and training • leadership development • audit and management of patient information (confidentiality and anonymity) • organisational processes • reporting systems for adverse clinical events and 'near misses', etc.
Outcomes	includes things like *(non-exhaustive list)* • continuous quality improvements (CQI) • patient satisfaction and reduced number of 'near misses' and adverse events • Improving rapport between patients and clinicians • improving collaboration between professionals and managers etc. • improving patient satisfaction

Standards

There is little point in measuring things within the organisation and not doing so against a recognised standard. It is customary to audit against recognised standards, for instance an organisation's capacity to deliver adequate and efficient pre-hospital care may be measured against specific clinical practice guidelines and the Practitioners/Responders' ability to implement it (trained/licensed, etc).

Another area of standards would be the Governance Validation Framework (GVF) and an organisation's ability to comply with specific items within GVF.

Some Ideas for SCRAP

Any small research study or audit can feed information into a bigger project to improve what the clinical or organisational activities of the licensed Provider. Consider how a small-scale research or audit could feed information into a development project in the second step of this DMAIC model (adapted from 'Six Sigma').

Action	Provider's Questions	
DEFINE:	What is important?	Defines the problem, issue, or opportunity for improvement. Develops a clear mandate for improvement based on a real problem, issue, or opportunity for improvement.
MEASURE:	How are we doing?	To understand the baseline and current levels of organisational performance.
ANALYSE:	What is wrong?	To establish the root causes of the problem, issue, or opportunity for improvement and understand their effect on the healthcare service process.
IMPROVE:	What needs to be done?	To develop, select and implement the best quality improvement solutions based on data collected and analysed, critical reference to the healthcare evidence base and the context of the organisation.
CONTROL:	How do we sustain the improvement?	To ensure the quality improvement solution is embedded in the organisation and any new process or processes have robust controls.

Note that after something is identified, measured, and analysed the next steps involve interventions designed to improve the situation this is commonly described as the audit cycle.

The Audit Cycle

The audit cycle essentially consists of defining a problem, figuring out how to study it, gathering data, analysing it and determining any necessary changes/improvements needed, then following up with an evaluation of what you have done to see if it is working. The Quality and Patient Safety Directorate, in their audit guide, describes this as a 5-step process that involves **planning for audit, selection of a standard or criteria, measuring performance, making improvements and sustaining those improvements.**

Here is an example of an audit cycle adapted from Gottwald and Landsdown's (2014) description of the steps of the audit process:

1. Define problem you are addressing.
    - Why did you choose the topic?
    - Why is it a priority?
    - High cost?
    - A common problem?
    - Life threatening?
    - Related to your local population?
    - A routine check of everyday care or service provision?
    - An example of inadequate care?
    - What other reasons are important?
2. What are your objectives? Are they SMART?
3. Have you designed your audit protocol in such a way that everyone knows who is doing what, why, when, and how?
    - What principles of good practice are included in your audit?
4. Who will lead the audit?

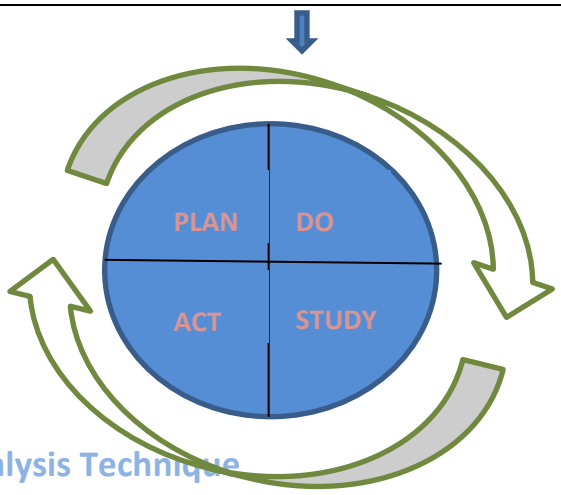
- What resources do you need, for example training, resources, facilities, skills, people, and time?

5. What criteria have you selected and why?
    - What standards have you selected to audit/research against?
    - What data/information will you gather as a baseline?
6. When will you start? What is the timetable?
    - What will you measure?
    - How?
    - For how long?
7. What system do you have for reviewing the results of the audit and reviewing performance against the agreed standards?
    - Who will decide and who will make any necessary changes?
8. What changes do you hope to make?
    - Are these changes possible within current resources and skills?
    - If necessary, from where will you obtain additional resources?
9. What specific outcomes do you expect from introducing the intervention or change?
    - How will you measure these?
    - How will you demonstrate any improvements or changes from the baseline arising from the intervention(s)?
    - When and how will you re-audit your improved or changed practice or service?
    - How will you sustain the results?
    - How will you share the knowledge in the organisation or wider?

Focus PDSA

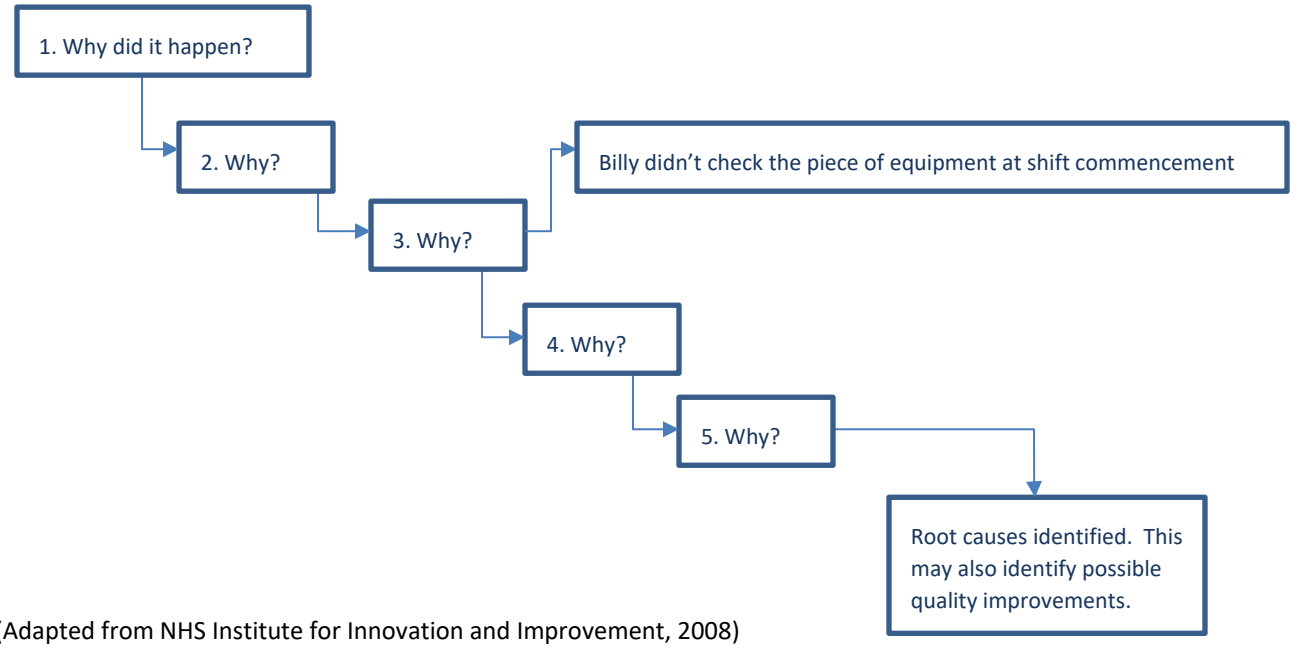
Another model that involves identification of problematic areas and then initiating targeted changes designed to improve quality in healthcare is a FOCUS analysis followed by a Plan , Do, Study, Act (PDSA) cycle. SCRAP may be used in the clarifying stage of FOCUS and again in the study phase of the PDSA cycle.

F	FIND a process requiring improvement, define its beginning and end and determine who will benefit from the improvement.
O	ORGANISE a knowledgeable team - ensure inclusion of staff from all organisational levels).
C	CLARIFY the current process and identify the improvements/changes required.
U	UNDERSTAND the causes of variation within the process by measuring performance at various steps throughout the process.
S	Identify and SELECT the actions (projects, tasks, activities) required to improve the process.



Why Root Cause Analysis Technique

Another technique that is used when organisations are trying to understand what has happened and are planning improvements in the quality of healthcare is Root Cause Analysis. Providers may elect to perform a root cause analysis of a problem by applying the 'Five Whys' technique. This involves simply asking "**Why?**" and recording the answers on a piece of paper so that it can be interrogated until the root causes are identified



(Adapted from NHS Institute for Innovation and Improvement, 2008)

N.B. If an individual is identified as being responsible for an unwanted occurrence (step 3) this why the technique should not cease there. This examination should be continued in a non-punitive manner to get to the 'root cause' of the issue.

Adverse Events and Near Miss

The development, access, monitoring, use of, and learning to inform continuous improvements in the quality of evidence-based healthcare is paramount. The area of reporting, monitoring, and learning from adverse events and near misses is a key component. It is estimated that approximately half of the adverse events are preventable (Rafter *et al*. 2015).

A strong emphasis should be placed on reporting near misses; reporting of near misses creates important information that can be used for the purpose of quality improvement.

Never Events

A Never event is deemed as the occurrence of a serious incident that is preventable and should never happen, because the organisation should be aware of National and International Guidance regarding processes, etc that should be implemented and would prevent the occurrence of the serious incident. It is important that when a Never Event occurs, regardless of the outcome, the problems are identified and analysed using a systems-based investigation method (such as root cause analysis – RCA) to understand how and why they occurred (from a systems perspective)

Glossary of Helpful Terms

Term	What is it?
Adverse Event	Adverse events are unintended injuries or complications that are caused by the management of a patient's healthcare, rather than by the patient's underlying disease. Such complications can lead to death, disability or a prolonged hospital stay.
Correlation	A mutual relationship or connection between two or more things.
GVF	Governance Validation Framework.
Measure	A basis for comparison or a reference point against which other things can be evaluated; comparison against a standard.
Near Miss	An event not causing harm and which has the potential to cause injury or ill health, the term near miss will include dangerous occurrences.
Never Events	Never Events are defined as Serious Incidents that are wholly preventable because guidance or safety recommendations that provide strong systemic protective barriers are available and should have been implemented by all healthcare providers.
Non-exhaustive list	A list that does not contain every possible item that could be listed.
Outcome	The way a thing turns out; a consequence.
Outcomes measures	Take stock not of the processes, but of the actual results of care. They are generally the most relevant measures for patients and the measures that Providers most want to change.
Process	A series of actions or steps taken to achieve a particular end.
Prospective	Involves studying items that relate to the future (i.e. deciding to gather data for a set period of time).
Quantitative	Relating to, measuring, or measured by the quantity of something rather than its quality.
Qualitative	Relating to, measuring, or measured by the quality of something rather than its quantity.
Research	Systematic investigation into and study of materials and sources to establish facts and reach new conclusions.
Retrospective	Looking back on or dealing with past events or situations.
SCRAP	Small-scale Clinical or Research Audit Project (SCRAP).
Structure	The quality of being organised. Can be related to the organisation or operations.

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