Audits in hospital care: Which factors determine the effectiveness of audits?
A realist review of the literature

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Clinical audit can be an effective instrument in improving the quality of local healthcare\(^1,2\)

However, its benefits have not rigorously been tested

1. Which determinants influence the effectiveness of audits?
2. Are these determinants also of influence on clinical audits?
3. What are the effects of clinical audit on the quality of hospital care?

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Practical example: Clinical audits

- Based on practical experiences of residents
- Many reports of falls
- Clinical audit conducted on fall-risk screening
- Action plans
- Re-audit after 6 months
Overview

• Introduction
• Methods
• Theory and steps of data extraction
• Questions & discussion
# Audits in healthcare settings

<table>
<thead>
<tr>
<th>Purpose</th>
<th>External audit</th>
<th>Internal audit</th>
<th>Clinical audit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performed by</strong></td>
<td><strong>To demonstrate compliance with external criteria (certification; accreditation)</strong></td>
<td><strong>To demonstrate compliance with regulations, often as preparation for external audit</strong></td>
<td><strong>To improve clinical practice by examining care against criteria and implement improvements</strong></td>
</tr>
<tr>
<td><strong>Performed by</strong></td>
<td>External auditors</td>
<td>Internal auditors, often quality staff</td>
<td>Healthcare professionals</td>
</tr>
</tbody>
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**Overview**

- **Introduction**
- **Methods**
- **Theory**
- **Questions & Discussion**
Effectiveness

Variety in effects of external audits and audit and feedback in improving healthcare quality\textsuperscript{3-6}

Effectiveness of quality improvement strategies seems to be influenced by
- Continuous improvement focus
- Bottom-up initiative
- Active involvement of healthcare professionals

Conceptual model

Audit context (C)
1. Organisational culture
2. Other contextual factors

Mechanisms of the audit (M)
1. Continuous improvement
2. Bottom-up
3. Active involvement of professionals
4. Other mechanisms

Audit outcomes (O)
Improved quality of healthcare
Research objectives

To identify determinants of the effectiveness of audits.

- To investigate whether a continuous improvement focus, bottom-up initiative and the active involvement of healthcare professionals contribute to the effectiveness of audits
- To identify other relevant determinants of effective audits
Realist review: Context, Mechanisms and Outcomes

Don’t ask ‘does it work or not?’
Rather, investigate: ‘why does it work and in what circumstances?’

The same intervention mechanism may have different outcomes in different contexts
Methodological steps

1. Scope
2. Search for evidence
3. Quality appraisal of the evidence
4. Data extraction and coding
5. Synthesize findings
6. Dissemination
Search strategy

Quality and safety studies in healthcare management and biomedical field

- MEDLINE
- Embase,
- PsychINFO,
- Academic Search Premier,
- Business Source Premier,
- EmeraldInsight,
- Cochrane Library and
- Web of Science
Quality Appraisal and Data Extraction

- Grading of Recommendations Assessment, Development, and Evaluation (GRADE) scale
- Data extraction form
  - Country
  - Study setting and design
  - Unit of analysis
  - CMO-elements
  - Main findings
  - Recommendations
Methodological steps

1. Scope
2. Search for evidence
3. Quality appraisal of the evidence
4. Data extraction and coding
5. Synthesize findings
6. Dissemination
Steps of data extraction

1. Mapping the outcomes
2. Explaining the outcomes
3. CMO-configurations
Step 1: Mapping the outcomes

Study A

Audit context (C)
Supportive culture for quality improvements

Mechanisms of the audit (M)
Collaboration between stakeholders

Audit outcomes (O)
Improved quality of healthcare
Step 1: Mapping the outcomes

Study A

Audit context (C)
Supportive culture for quality improvements

Mechanisms of the audit (M)
Collaboration between stakeholders

Audit outcomes (O)
Improved quality of healthcare

Study B

Audit context (C)
CEO’s Commitment for quality improvement

Mechanisms of the audit (M)
Weak participation of professionals

Audit outcomes (O)
Improved quality of healthcare

Overview        Introduction          Methods          Theory          Questions & Discussion
Step 2: Explaining outcomes

Same mechanisms within different contexts

Study A
- Audit context (C)
- External pressure
- Mechanisms of the audit (M)
- Active participation
- Audit outcomes (O)
- No improved quality

Study C
- Audit context (C)
- CEO's Commitment
- Mechanisms of the audit (M)
- Active participation
- Audit outcomes (O)
- Improved quality

Study B
- Audit context (C)
- Supportive culture
- Mechanisms of the audit (M)
- Active participation
- Audit outcomes (O)
- Improved quality
Step 3: CMO-configurations

Within a context with a supportive culture for quality improvement (context) the active participation of healthcare professionals in the audit process (mechanism) leads to improved quality of healthcare (outcome).
Go to www.govote.at and enter the code 22 41 55 to vote

Vote with your mobile or any other device
Quality improvement stands or falls with the active involvement of healthcare professionals

Go to www.govote.at and enter the code 22 41 55 to vote

https://www.mentimeter.com/app/edit/a907bbce555b42ebd44b49c33500dc0/5e25f93f4968
Your Mentimeter question will show up here

The question with the URI you submitted will be displayed here once you enter slide show mode.

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Take home messages

- Audits are ‘complex interventions’
- Theory and context are important to understand how complex interventions work
- Realist review is a promising approach to understand contextual influences on whether, why and how audits work
- No ‘one-size-fits-all’ set to predict success or failure of audits
Which other mechanisms are of influence on the effectiveness of audits?
Thank you for your attention

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Literature I

Literature II

Search strategy

MEDLINE (PubMed)