

# The Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0)

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*For the SQUIRE Group:*

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# What are the SQUIRE Guidelines?

- Publication guidelines for reporting work aimed at improving the quality, safety, and value of health care
- First released in 2008
- Updated version – SQUIRE 2.0 released last month
  - Product of 3 years of evaluation and development

# Background

## Why do we need SQUIRE?

- ✓ Done by busy “front line” professionals, more concerned with local change than generalizable truths
  - Lack of training and experience in research, publishing
  - Lack of academic incentives
- ✓ Editors, peer-reviewers unfamiliar, skeptical
- ✓ Writing about improvement work is hard

## How does SQUIRE help?

- ✓ Offers guidance on reporting original studies of improvement
  - Acknowledges context-dependence, complexity, iterative nature of the work
  - Emphasizes the measuring of impact and discovery *and also an* explanation of mechanisms
- ✓ Supports planning as well as writing phases

# Why did SQUIRE need updating?

- ✓ Healthcare changing:
  - ✓ Health professions education includes improvement as a core competency
- ✓ The improvement field is growing and changing:
  - ✓ The use of theory to guide improvement is emerging
  - ✓ Context is more deeply understood
  - ✓ Ways to describe and study interventions are being clarified

## Aim

To revise the SQUIRE 1.0 guidelines to reflect the developments in the field and the many methods that are used to improve the quality, value, and safety of healthcare.

# Methods

1. Evaluation of the initial SQUIRE guidelines (SQUIRE 1.0, 2008)
  - Assess usability and clarity
  - Semi-structured interviews / focus groups with 29 end users
  - Input from 18 experts (editors, researchers, improvers)
2. Early revisions of versions 1.2 and 1.4
  - Two consensus conferences (Nov 2013 & Nov 2014)
3. Pilot testing of version 1.6 with late revisions
  - 44 authors used interim draft to write sections of a manuscript
    - Provided feedback on utility and understandability of the draft guidelines
  - Semi-structured interviews with 11 journal editors
  - Version 1.8 sent to over 450 individuals around the world

# Methods

Davies, Louise, et al.

"Findings from a novel approach to publication guideline revision: user road testing of a draft version of SQUIRE 2.0." *BMJ quality & safety* (2015): bmjqs-2015.

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# Major Changes to SQUIRE 2.0

1. Terminology & language
  - E.g., Healthcare improvement vs. quality improvement
2. Theory → Rationale
  - Why this approach was chosen, why it was thought it might work
  - *Not* the method used for the work (e.g., lean or six sigma)
3. Context
  - Where the work was done, what is important about the setting
  - Explicitly included in methods, results, discussion
4. Studying the intervention(s)
  - reflecting upon the work that was done – e.g.,
    - Did things get better for the reasons you thought?
    - Were there unintended consequences?
    - What is the opportunity cost for the value gained from the work?

# 1. Language → simplicity

Methods	<i>What did you do?</i>
<b>Context</b>	Contextual elements considered important at the outset of introducing the intervention(s)
<b>Intervention(s)</b>	<ul style="list-style-type: none"> <li>• Description of the intervention(s) in sufficient detail that others could reproduce it</li> <li>• Specifics of the team involved in the work</li> </ul>
<b>Study of the Intervention(s)</b>	<ul style="list-style-type: none"> <li>• Approach chosen for assessing the impact of the intervention(s)</li> <li>• Approach used to establish whether the observed outcomes were due to the intervention(s)</li> </ul>
<b>Measures</b>	<ul style="list-style-type: none"> <li>• Measures chosen for studying processes and outcomes of the intervention(s), including rationale for choosing them, their operational definitions, and their validity and reliability</li> <li>• Description of the approach to the ongoing assessment of contextual elements that contributed to the success, failure, efficiency, and cost of the improvement</li> <li>• Methods employed for assessing completeness and accuracy of data</li> </ul>
<b>Analysis</b>	<ul style="list-style-type: none"> <li>• Qualitative and quantitative methods used to draw inferences from the data</li> <li>• Methods for understanding variation within the data, including the effects of time as a variable</li> </ul>
<b>Ethical Considerations</b>	Ethical aspects of implementing and studying the intervention(s) and how they were addressed, including, but not limited to, formal ethics review and potential conflict(s) of interest

b. Reports efforts to validate and test reliability of assessment instruments  
 c. Explains methods used to assure data quality and adequacy (for example,



# 2. Rationale (theory)

## SQUIRE

<u>Introduction</u>	<i>Why did you start?</i>
<b>3. Background Knowledge</b>	Provides a brief, non-selective summary of current knowledge of the care problem being addressed, and characteristics of organizations in which it occurs
<b>4. Local problem</b>	Describes the nature and severity of the specific local problem or system dysfunction that was addressed
<b>5. Intended improvement</b>	<ol style="list-style-type: none"><li>a. Describes the specific aim (changes/improvements in care processes and patient outcomes) of the proposed intervention</li><li>b. Specifies who (champions, supporters) and what (events, observations) triggered the decision to make changes, and why now (timing)</li></ol>
<b>6. Study question</b>	States precisely the primary improvement-related question and any secondary questions that the study of the intervention was designed to answer

# 2. Rationale (theory)

## SQUIRE


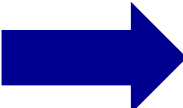
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## SQUIRE 2.0

<b>Introduction</b>	<i>Why did you start?</i>	processes and
<b>Problem Description</b>	Nature and significance of the local problem	servations) g)
<b>Available knowledge</b>	Summary of what is currently known about the problem, including relevant previous studies	nd any esigned to
<b>Rationale</b>	Informal or formal frameworks, models, concepts, and/or theories used to explain the problem, any reasons or assumptions that were used to develop the intervention(s), and reasons why the intervention(s) was expected to work	
<b>Specific aims</b>	Purpose of the project and of this report	

# 3. Context

## 4. Study of the Intervention



<b>Methods</b>	<i>What did you do?</i>
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# www.squire-statement.org



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## SQUIRE 2.0

*The Standards for Quality Improvement Reporting Excellence*

Supporting excellence in reporting of work to improve the quality, safety and value of healthcare.

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### Latest News



#### SQUIRE 2.0 is here!

The new and revised SQUIRE guidelines (SQUIRE 2.0) are here! BMJ Quality and Safety published the new guidelines and they are also available on our [website](#). The 2.0

### Feature Slideshow



# Revised Standards for Quality Improvement Reporting Excellence

## SQUIRE 2.0

### Notes to Authors

- The SQUIRE guidelines provide a framework for reporting new knowledge about how to improve healthcare.
- The SQUIRE guidelines are intended for reports that describe [system](#) level work to improve the quality, safety, and value of healthcare, and used methods to establish that observed outcomes were due to the [intervention\(s\)](#).
- A range of approaches exists for improving healthcare. SQUIRE may be adapted for reporting any of these.
- Authors should consider every SQUIRE item, but it may be inappropriate or unnecessary to include every SQUIRE element in a particular manuscript.
- The SQUIRE Glossary contains definitions of many of the key words in SQUIRE.
- The Explanation and Elaboration document provides specific examples of well-written SQUIRE items, and an in-depth explanation of each item.
- Please cite SQUIRE when it is used to write a manuscript.

### Title and Abstract

<p><b><u>1. Title</u></b></p>	<p>Indicate that the manuscript concerns an <a href="#">initiative</a> to improve healthcare (broadly defined to include the quality, safety, effectiveness, patient-centeredness, timeliness, cost, efficiency, and equity of healthcare)</p>
<p><b><u>2. Abstract</u></b></p>	<p>a. Provide adequate information to aid in searching and indexing</p> <p>b. Summarize all key information from various sections of the text using the abstract format of the intended publication or a structured summary such as: background, local <a href="#">problem</a>, methods, <a href="#">interventions</a>, <a href="#">results</a>, <a href="#">conclusions</a></p>

### SQUIRE 2.0

[NOTES TO AUTHORS](#)

[TITLE AND ABSTRACT](#)

[INTRODUCTION](#)

[METHODS](#)

[RESULTS](#)

[DISCUSSION](#)

[OTHER INFORMATION](#)

### SHORTCUTS

[SQUIRE 2.0 PDF](#)

[GLOSSARY](#)

[BMJ QUALITY & SAFETY](#)

# Limitations

- The final guidelines should themselves be tested for usability
- Simply publishing new guidelines, by itself, is unlikely to make an impact in the published literature
  - ✓ E&E document
  - ✓ Videos on the website
  - ✓ Educational Presentations at conferences
  - ✓ **SQUIRE Writing Conference at Dartmouth, Nov 17-18**
- Continued development of methods for healthcare improvement are needed

# Summary

- SQUIRE 2.0 was developed through detailed analysis of 1.0, input from experts, and thorough pilot testing
- Applies to the many approaches used to improve the quality, safety, and value of healthcare services
- 3 pillars of improvement work reporting:
  - Description of context
  - Rationale for the work
  - Study of the intervention
- Tools to help are available on the website [www.squire-statement.org](http://www.squire-statement.org)



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