Developing Quality Improvement Tools for Internal Audit of Research Ethics Committees

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Outline of Presentation

- Quality Improvement (QI) and Ethical Review
  - Definitions
  - Rationale

- SIDCER/FERCAP QI in Ethical Review Tool
  - Framework
  - Quality Tools
QI and Ethical Review

Defining QI

- An internal, proactive, and systematic approach in analyzing and evaluating performance in order to effect change and improve current practice.

Global acknowledgement of the importance of ethical review conducted by ECs/IRBs

- WMA Declaration of Helsinki (1964/2013)
- CIOMS International Ethical Guidelines for Biomedical (1993/2002)
- ICH Guideline for GCP (1996)
- WHO Operational Guidelines for ECs (2000)
QI and Ethical Review

Globalization of clinical trials

- From January 2005 to December 2010, the Asia-Pacific region contributed 8.7% of the participants in EMA-authorized clinical trials: “Middle East/Asia/Pacific (8.7% in total): India (1.6%), Israel (1.2%), Philippines (1.1%), Thailand (0.9%), and China (0.7%), followed in order by South Korea, Chinese Taipei, Japan, Turkey, Malaysia and Hong Kong contributing between 0.3 and 0.6%” (EMA, 2012)

- In November 2013, the Asia-Pacific region has 33,375 (21.60%) out of the 154,510 US NIH-sanctioned clinical trials (US NIH, 2013)
QI and Ethical Review

Quality and harmonization of ethical review practices

- Increasing number of ECs/IRBs were established or strengthened in the last decade to improve human participant protection
- Increasing need for assurance of the quality of ethical review practices in accordance with the harmonization of these practices
- Harmonization of ethical review practices is in compliance with international and national ethical guidelines for health research
- Overall, harmonization of ethical review practices helps in institutionalizing a check and balance system and setting up a QI system in health research
QI and Ethical Review

Current status of QI in ethical review

- While QI process exists in many organizations, it was said to be less common among ECs/IRBs.
- Broader types of QI process include various health research oversight mechanisms that were set-up internationally, regionally, and nationally to accredit and/or recognize ECs/IRBs (Sansone & McDonald, 2004).
- Examples of voluntary oversight mechanisms are: SIDCER/FERCAP recognition program (SIDCER, 2005; WHO/TDR, 2005); Philippine Health Research Ethics Board (PHREB) accreditation program (PHREB, 2011); and National Ethics Committees Accreditation System of Thailand (NECAST) accreditation program (NECAST, 2012).
QI and Ethical Review

Voluntary oversight mechanism: SIDCER/FERCAP recognition program

- Global program that promotes **good ethical review practices** in health research by implementing international criteria for surveying and evaluating ECs/IRBs
- Recognition program for capacity-building and QI of ECs/IRBs according to **five requirements or standards**
### QI and Ethical Review

**SIDCER Recognition Criteria**

<table>
<thead>
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<th>Standard 1: Structure and Composition</th>
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<td>Standard 2: Adherence to Specific Policies</td>
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<td>Standard 3: Completeness of Review Process</td>
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<td>Standard 4: After Approval Review Process</td>
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<td>Standard 5: Documentation and Archiving</td>
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**Human Participant Protection**
QI and Ethical Review

Voluntary oversight mechanism: SIDCER/FERCAP recognition program

Self-Assessment and Application

Site Visit and Evaluation
[Opening Meeting; Office Visit; Document Review (Membership and Training Files, SOPs, Protocol Files, After Review Files, Meeting Minutes, Communication Records); Interview; Board Meeting Observation; Summary Meetings; Closing Meeting; Survey Report Preparation, Finalization, and Distribution]

Corrective Action/Action Plan of the EC/IRB

Recognition Decision
[Full Recognition; Preliminary Recognition; Pending Recognition]

Renewal of Recognition
Voluntary oversight mechanism: SIDCER/FERCAP recognition program

- Stemming from the site survey and evaluation of various recognized ECs/IRBs, common problems have been identified and consequently recommendations were made to address these problems (Hamadian & Johansen, 2008)
QI and Ethical Review

Contribution and limitation of voluntary oversight mechanism

- Contribute in QI in ethical review by encouraging the development of standardized policies and procedures, promoting a common base of knowledge, and enhancing the status of ECs/IRBs within their own institutions.
- Limited because they focus primarily on questions of structure and process and there is a need for an effective outcomes assessment of ECs/IRBs (Coleman & Bouësseau, 2008).
- The SIDCER/FERCAP QI in Ethical Review Tool hopes to address the said limitation.
QI and organizational change

- QI in organizations such as ECs/IRBs consists of data-guided/evidence-based and systematic actions or activities that evaluate organizational performance and lead to measurable organizational improvement.
- QI is linked with theories and models of organizational change particularly with the teleological (planned change, rational change or scientific management) model.
- QI is a popular systematic management approach.
- QI is also sometimes linked with the evolutionary (adaptive change) model because of its adoption of contingency and general systems theory.
QI and organizational change

- **Closed systems approach** consider the external environment and the organization’s interaction with it, to be for the most part inconsequential while **open systems approach** views the organization’s interaction with its external environment as vital for organizational survival and success.
- For the **SIDCER/FERCAP QI in Ethical Review Tool**, an amalgam of several theories and models of organizational change were used.
- Cognitive-social, cultural, and dialectical-political models were also combined with evolutionary and teleological models especially in relation to James Gibson et al.’s **behavior-structure-process (BSP) model** and Avedis Donabedian’s **structure-process-outcomes (SPO) model**.
SIDCER/FERCAP QI in Ethical Review Tool

QI in Ethical Review

Change Agents/Initiators of Change
[External and/or Internal Change Agents]

External:
- International and Regional Fora and Oversight Mechanisms (e.g. SIDCER/FERCAP Recognition Program)
- National Fora and Oversight Mechanisms (e.g. FERCIT, NECAST, PHREB)
- Institutional (e.g. Faculty, Hospital, University)

Internal:
- EC/IRB Officers, Members, and Staff

Behavioral Changes
(e.g. motivation, open-mindedness for QI, teamwork)

Structural Changes
(e.g. EC/IRB finances, office, organizational structure)

Processual Changes
(e.g. ethical review process, after review process)

Outcome
[QI in Ethical Review]
### SIDCER/FERCAP QI in Ethical Review Tool

#### QI in Ethical Review

<table>
<thead>
<tr>
<th><strong>Safety</strong></th>
<th>• Risks identified and minimized</th>
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<tbody>
<tr>
<td><strong>Timeliness</strong></td>
<td>• Thorough review within the timeline</td>
</tr>
<tr>
<td><strong>Efficacy</strong></td>
<td>• Benefits maximized, appropriate study design, protection measures identified (e.g. ICF)</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>• No COI</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>• Cost and time spent</td>
</tr>
<tr>
<td><strong>Participant-centered</strong></td>
<td>• Confidentiality protection</td>
</tr>
</tbody>
</table>
What are we looking for?

Thorough review = Assessment form

The reviewer (suitability for the type of protocol)

The compliance with review SOPs

The review of PI competence

The review of Science: Rationale, study design

The review of Ethics: Vulnerability, R/B, ICF
### Quality tool:
**Check sheet for quality of protocol review**

<table>
<thead>
<tr>
<th>EC/IRB Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Areas for Improvement</strong></td>
<td>Protocol 1</td>
</tr>
<tr>
<td>01. Incomplete assessment form</td>
<td></td>
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<tr>
<td>02. Unsuitable reviewer</td>
<td></td>
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<tr>
<td>03. Non-compliance with SOP</td>
<td></td>
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<td>04. Failure to assess PI competence/COI</td>
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<td>05. Failure to recognize vulnerability</td>
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<td>06. Inappropriate study design</td>
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<tr>
<td>07. Inappropriate risk/benefit review</td>
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<tr>
<td>08. Incomplete/inappropriate ICF review</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

**Legend:** 0 = no defect; 1 = with defect
Quality tool:
Check sheet for quality of protocol review

- Definition of areas for improvement:
  1. Incomplete assessment form: Reviewer’s assessment forms have incomplete answers and/or there are no comments when it’s required;
  2. Unsuitable reviewer: Reviewers’ qualifications (e.g., educational background, specialization, etc.) are not suitable for reviewing specific protocol and/or they don’t take their responsibilities as reviewers seriously (e.g., absence during the Board Meeting, late or non-submission of accomplished reviewer’s assessment forms, etc.);
  3. Non-compliance with SOPs: Protocol review is in violation of standard operating procedures (e.g., required protocol documents, review timeline, etc.);
  4. Failure to assess PI competence/COI: Primary investigator(s) qualifications (including GCP training whenever necessary) and conflict of interest are not adequately reviewed by the EC/IRB;
  5. Failure to recognize vulnerability: EC/IRB’s failure to: a) detect the inappropriate use of vulnerable participants given that the protocol can be done in other non-vulnerable groups; b) recognize vulnerability of participants in different contexts; and c) recognize the lack of measures to protect vulnerable participants;
  6. Inappropriate study design: EC/IRB’s failure to detect and discuss inappropriate research design, comparator/placebo, inclusion and exclusion/withdrawal criteria, sample size, primary endpoint(s), etc.;
  7. Inappropriate risk/benefit review: EC/IRB’s failure to assess and comment on risks, benefits, and the balance in risk/benefit ratio;
  8. Incomplete/inappropriate ICF review: EC/IRB’s failure to review incomplete and inappropriate content (e.g., important protocol details, confidentiality, voluntary participation, compensation, medical care, etc.), language (e.g., age-appropriate terms, non-inducing terms, technical terms, etc.), and process of the informed consent.
### Quality tool: Summary check sheet for quality of protocol review

#### Quality review assessment [8 ECs, 3 countries, 45 protocols]

<table>
<thead>
<tr>
<th>Area of Improvement</th>
<th>EC1 (N=16)</th>
<th>EC2 (N=15)</th>
<th>EC3 (N=15)</th>
<th>EC4 (N=15)</th>
<th>EC5 (N=12)</th>
<th>EC6 (N=21)</th>
<th>EC7 (N=10)</th>
<th>EC8 (N=41)</th>
<th>Total</th>
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</thead>
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<tr>
<td>Assessment Form</td>
<td>16</td>
<td>9</td>
<td>14</td>
<td>15</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>27</td>
<td>101</td>
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<tr>
<td>Reviewer</td>
<td>10</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>9</td>
<td>45</td>
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<tr>
<td>SOP compliance</td>
<td>13</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>31</td>
<td>75</td>
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<tr>
<td>Review PI competence</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>15</td>
<td>54</td>
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<td>Vulnerable Sub</td>
<td>7</td>
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<td>Risk/benefit</td>
<td>11</td>
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<td>4</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>8</td>
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<td>Study design</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>6</td>
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<td>3</td>
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<tr>
<td>Insufficient ICF</td>
<td>15</td>
<td>13</td>
<td>11</td>
<td>13</td>
<td>9</td>
<td>13</td>
<td>7</td>
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<td>59</td>
<td>35</td>
<td>68</td>
<td>29</td>
<td>120</td>
<td>499</td>
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SIDCER/FERCAP QI in Ethical Review Tool

Quality tool: Pareto chart for quality of protocol review

- insufficient ICF: 21%
- Assessment form: 41%
- Noncompliance SOPs: 56%
- Competence: 67%
- PI: 77%
- R/B: 86%
- Reviewer: 95%
- Vulnerability: 100%
- Study design: 100%

0% - 120%
SIDCER/FERCAP QI in Ethical Review Tool

Quality tool: Fishbone diagram for quality of ethical review
SIDCER/FERCAP QI in Ethical Review Tool

Quality tool: Fishbone diagram for quality of ethical review

Root Cause Analysis

Visualize various factors associated with a process affect the process’s output

- Policy
- SOP on Review
- Reviewers
- Incomplete Review

Factors:
- Unclear HEO reporting structure in the hospital
- Inconsistency
- Incomplete procedure on review
- Unclear SOPs
- Lack of training on scientific and Ethical Review and GCP
- SOP non-compliance
- Insufficient preparation
- Incomplete checklist
- Incomplete review checklist
- Unclear review role

Documents
- No Protocol format requirements for investigator initiated study
- Incomplete Application Form for all types of research
- No training for researcher

Board Meeting
- Primary reviewers provide inappropriate information
- No training on SOPs
- Unclear SOPs
- Inappropriate decision making

BC Secretariat
- Issues raised without offering solutions
- Non-systematic discussion
- Unsuitable reviewer

No training on how to use checklist
- Select non-competent reviewers
SIDCER/FERCAP QI in Ethical Review Tool

QI tool: Causes-recommendations-actions
SIDCER/FERCAP QI in Ethical Review Tool

Quality tool: Comparative check sheet for quality of protocol review

<table>
<thead>
<tr>
<th>EC/IRB Name</th>
<th>Date</th>
<th>Area for Improvement</th>
<th>QI Rev 1 (Baseline)</th>
<th>QI Rev 2</th>
<th>Significant Difference</th>
<th>QI Rev 3</th>
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Thank you very much c”,:)