

Assessment of the compliance of our drug circuit audit process with a selection of 42 effectiveness criteria

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Background

- A new theory for the **design, implementation and evaluation of feedback** in healthcare has been published.
- It includes a selection of **high-confidence hypotheses** that influence the effectiveness of feedback cycle.

Objectives

- To assess the **compliance** of our drug circuit audit process with a selection of **42 effectiveness criteria**.

Methods

- **Descriptive study**, in a mother-child university hospital center.
- An **audit on drug circuit** targeting drug preparation and administration by nursing staff is conducted annually.
- We assessed the compliance of that audit process by using the **Clinical Performance Feedback Intervention Theory** and its **42 hypotheses**.
- It is categorised in **three group of variables**: feedback, recipient, and context and **10 sub-groups**:
 - Goals;
 - Data collection and analysis method;
 - Feedback display;
 - Feedback delivery;
 - Health professional characteristics;
 - Behavioural response;
 - Organisation or team characteristics;
 - Patient population;
 - Co-interventions;
 - Implementation process.
- Two research assistants **rated each criteria** (conform, not conform or not applicable), along with supporting **comments**.
- Two pharmacists independently **reviewed** the grid to confirm the ratings. Differences were resolved by consensus.

Table I. Compliance of our drug circuit audit with a selection of 42 effectiveness criteria

Feedback interventions are more effective when ...	Conformity
1. Importance: ... They focus on goals recipients believe to be meaningful and often do not happen in practice.	C
2. Controllability: ... They focus on goals perceived to be within the control of the recipients.	C
3. Relevance: ... They focus on goals perceived as relevant to recipients' jobs.	C
4. Conducted by recipients: ... They do not require the recipient to collect or analyse the clinical performance data.	C
5. Automation: ... They collect and analyse data automatically rather than manually.	NC
6. Accuracy: ... They use data believed by recipients to be a true representation of their clinical performance.	C
7. Exclusions: ... They allow recipients to exclude report patients they feel are inappropriate to include in their performance measurement.	C
8. Performance level: ... They communicate recipients' current performance has room for improvement.	C
9. Patient lists: ... They show the details of patients used to calculate the recipients' clinical performance.	C
10. Specificity: ... They report the performance of individual health professionals rather than their wider team or organisation.	NA
11. Timeliness: ... They use recent data to calculate recipients' current performance.	C
12. Trend: ... They show recipients' current performance in relation to their past performance.	C
13. Benchmarking: ... They compare recipients' current performance to that of other health professionals, organisations or regions.	NC
14. Prioritisation: ... They communicate the relative importance of feedback contents.	C
15. Usability: ... They employ user-friendly designs.	NC
16. Function: ... They are perceived to support positive change rather than punish suboptimal performance.	C
17. Source knowledge and skill: ... They are delivered by a person or organisation perceived to have an appropriate level of knowledge or skill.	C
18. Active delivery: ... They "push" feedback messages to recipients rather than requiring them to "pull". (Except if solely delivered face-to-face, which increases 41. Cost)	NC
19. Delivery to a group: ... They deliver feedback to groups of recipients.	C
20. Feedback attitude: ... They target health professionals with positive beliefs about feedback.	NC
21. Knowledge and skills in quality improvement: ... They target health professionals with greater capability in quality improvement.	C
22. Knowledge and skills in clinical topic: ... They target health professionals with greater capability in the clinical topic under focus.	C
23. Organisation-level and Patient-level behaviour: ... Health professionals undertake changes involving the wider health care system rather than just individual patients in response to feedback.	NC
24. Resource: ... Organisations and teams have greater capacity to engage with them.	NC
25. Competing priorities: ... Organisations and teams have minimal additional responsibilities.	C
26. Leadership support: ... They are supported by senior managers.	C
27. Champions: ... They are supported by individuals in the organisation dedicated to making it a success.	NC
28. Teamwork: ... They are implemented into organisations or teams whose members work together towards a common goal.	C
29. Intra-organisational networks: ... They are implemented into organisations or teams with strong internal communication channels.	C
30. Extra-organisational networks: ... They are implemented into organisations or teams that actively communicate with external bodies.	NC
31. Workflow fit: ... They fit alongside existing ways of working.	C
32. Choice alignment: ... They do not include patients who refuse aspects of care measured in the feedback in their calculations.	C
33. Clinical appropriateness: ... They do not include patients whose care cannot be safely optimised further.	C
34. Peer discussion: ... They encourage recipients discuss their feedback with peers.	C
35. Problem solving: ... They help recipients identify and develop solutions to reasons for suboptimal performance	C
36. Action planning: ... They provide solutions to suboptimal performance (or support recipients to do so).	C
37. External change agents: ... They provide additional staff to explicitly support its implementation.	NC
38. Adaptability: ... They are tailored to the specific needs of the health care organisation and its staff.	C
39. Training and support: ... They provide training and support regarding feedback (not the clinical topic under scrutiny).	C
40. Observability: ... They demonstrate their potential benefits to recipients.	C
41. Cost: ... They are considered inexpensive to deploy in terms of time, human or financial resources.	NC
42. Ownership: ... Recipients feel they "own" it, rather than it has been imposed on them.	NC

Abbreviation: C : Conform; NA: Non Applicable; NC: Non conform.

Results

- Compliance of our drug circuit audit process: **70.7% (29/41)**; one criteria was non applicable.
- Per sub-group of variables, it was:
 - Goals: **100%** (3/3);
 - Data collection and analysis method: **75.0%** (3/4);
 - Feedback display: **71.4%** (5/7);
 - Feedback delivery: **75.0%** (3/4);
 - Health professional characteristics: **66.7%** (2/3)
 - Behavioural response: **0%** (0/1);
 - Patient population: **100%** (2/2);
 - Organisation or team characteristics: **62.5%** (5/8);
 - Co-interventions: **75.0%** (3/4);
 - Implementation process: **60.0%** (3/5).
- Areas for improvement have been identified:
 - **Computerize the collection of information in real time;**
 - **Increase data sharing with other hospitals.**

Discussion/Conclusion

- Our drug circuit audit process complies with **most of the criteria** of an external standard.
- This assessment helped identify **areas for improvement**.

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