

Large-Scale Implementation of Physician Audit and Feedback

Rapid Review

The Health Technology Assessment Unit, University of Calgary

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1 Background

Audit and feedback is a widely used strategy to improve physician performance and improve quality and value of care.^{1,2} The objective of audit and feedback is to examine a physician's performance in comparison to professional targets and standards and subsequently provide that data to the physicians to encourage them to follow those standards.² Audit and feedback can be implemented on a local, regional and national level,³ and may be implemented as a single quality improvement tool or in conjunction with others like educational outreach, opinion leaders, and evidence-based care pathways.³ Studies evaluating the effectiveness of audit and feedback for behaviour change show that its effectiveness is highly variable;² this could be due to factors including format (written, verbal, or both), frequency, whether goals or action plans are included, and incentives and disincentives to behaviour change.¹⁻³ The purpose of this report is to look at implementation considerations used to address the complex barriers and facilitators of audit and feedback program effectiveness.

2 Methods

A rapid review of published literature was completed. MEDLINE and EMBASE were searched for studies published in English from 2010 until March 9, 2020. Terms aimed to capture the strategy of interest, such as “clinical audit,” “feedback,” “formative feedback,” and “peer review, health care” were searched as text words in titles and abstracts and as MeSH subject headings when applicable. The search was limited to exclude editorials, letters, review articles, and critical or scoping or systematic reviews. The search strategy was developed by a research librarian. The full search strategy is reported in the Appendix.

Citations identified through database searching were screened by a single reviewer, and full-texts were screened in duplicate. Publications were included if they met all inclusion criteria in Table 1 and failed to meet all exclusion criteria. For all included studies, author, year of publication, country, study design, implementation time, implementation objective, and implementation considerations were extracted by one reviewer and verified by a second using standardized data extraction forms. Discrepancies between reviewers during data extraction were resolved through consensus. Data on

implementation considerations were extracted by one reviewer and verified by another. Due to heterogeneity of included studies, results are synthesized narratively.

Table 1. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Implementation examples of audit and feedback that report original data (other terms including; performance feedback, practice feedback, and performance management) • Addresses implementation considerations including but not limited to: barriers, facilitators, challenges, infrastructure and resource requirements. • Purpose of program must be physician behavior change • Implementation at system level or hospital level • English only • Published between 2010-2020 	<ul style="list-style-type: none"> • Small scale implementation, e.g. implementation at a smaller scale than hospital level such as within one department • Programs targeting health care professionals other than physicians • Does not assess implementation considerations • Does not report original data (e.g. commentaries, editorials) • Feedback provided to residents or medical students • Feedback to a physician from a patient

3 Results

A total of 4,670 citations were identified from the literature search: MEDLINE (n=2,535), EMBASE (n=2,135) (Appendix Figure 1). Two additional records were identified through hand-searching. After duplicates were removed, 3,357 unique citations were screened during abstract review, and 79 proceeded to full-text review. Sixty-three publications were excluded at full-text review for the following reasons: did not report implementation considerations (n=25), was not a study design of interest (n=22), was not physician-specific (n=11), did not report data on physicians (n=3), was not data-informed (n=1), and full-text was not available (n=1) [Appendix Table 1].

Sixteen studies were included in this rapid review (Table 2).⁴⁻¹⁹ These studies were from: Australia,⁴⁻⁶ Canada,⁷⁻¹⁰ the UK,¹¹⁻¹³ United States,¹⁴⁻¹⁷ Africa¹⁸ and the Netherlands.¹⁹

Programs were implemented at various levels, nationally, provincially, across multiple hospital sites or in only one hospital. Eight studies implemented programs with individual feedback, ^{4-9,11,14} three with group feedback, ^{15,16,18} one utilized both group and individual feedback¹⁰ and four did not report this information. ^{12,13,17,19}

Five key implementation considerations were prominent in the literature: feedback delivery, perceived value, physician factors, infrastructure, and resources (Figure 1). Each of these considerations related to barriers and facilitators of successful implementation and physician behaviour change. A discussion of each follows.

Figure 1. Audit and Feedback Implementation Considerations

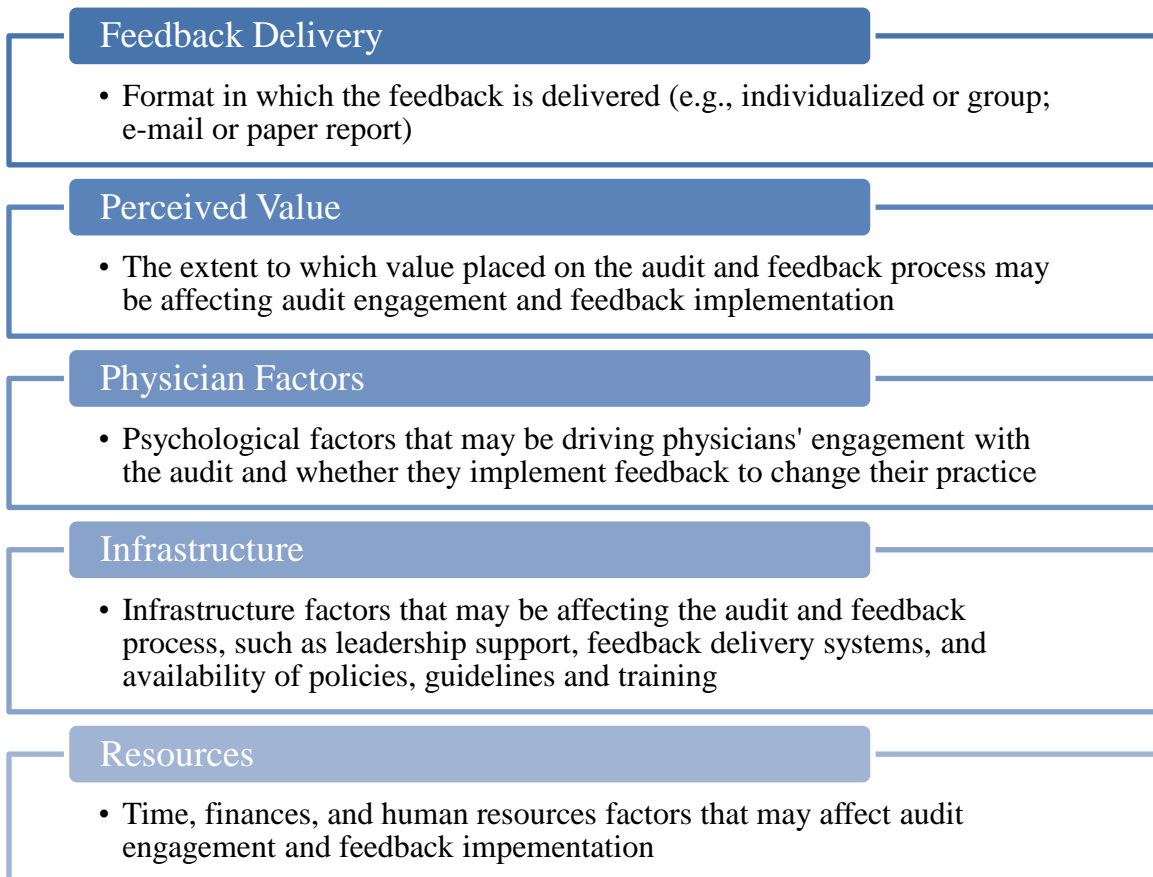


Table 2. Characteristics of Included Studies

	Author Year Country	Level of Implementation	Study Design	Sample	Implementation Time Frame of Audit and Feedback Program	Objective and Design of Audit and Feedback Program
Individual	Baysari et al. ⁴ 2013 Australia	Hospital	Quantitative analysis of “orange” antimicrobials prescribed that received the required approval; qualitative analysis of semi-structured interviews offered to physicians who received feedback	36 physicians received feedback; 14 interviewed	Weekly for 12 weeks	To improve compliance with the hospital’s antibiotic policy (i.e., to obtain approval for prescription of “orange” antimicrobials) by providing physicians with individualized feedback letters.
	Garvin et al. ⁸ 2017 Canada	Multi-site hospital (3 campuses)	Mixed methods: quantitative analysis of surveys about experience with the feedback process; qualitative analysis of focus group interviews	879 physicians	12 months	To provide physicians with comprehensive feedback on performance to help them reach their potential, create clarity and awareness of expectations, align with organizational goals, and to identify and recognize physician excellence.
	Ismail et al. ⁷ 2019 Canada	Two affiliated hospitals	Quantitative analysis of monthly volume of folate testing	111 physicians	18 months	To reduce unnecessary red blood cell folate tests for patients without any folate deficiency detected through electronic prompts, physician education, and test restrictions based on biochemist approval.
	Ivers et al. ⁹ 2014 Canada	Provincial	Qualitative analysis of in-depth semi-structured interviews, analyzed using the Framework approach	12 physicians (based on data saturation)	Not reported	To understand the usefulness of audit and feedback (provided through reports from EMERALD) among family physicians and examine the barriers to using it to improve quality of care for patients with diabetes.
	Leung et al. ⁵ 2017 Australia	Hospital	Randomized controlled design of 3 conditions: individualized feedback, refresher training, and control. Quantitative analysis of proportion of orders that triggered a duplication alert; qualitative analysis of informal interviews about physician experience	50 physicians	8 months	To improve the use of an electronic prescribing system by reducing duplicating alerts to change physician prescribing behaviour.
	Nag et al. ⁶ 2019 Australia	Multiple hospitals	Quantitative analysis of structured online surveys	159 surgeons received feedback, 22 cardiac	12 months	To assess cardiac surgeons’ access to and value of the current feedback reports provided through the ANZSCTS Database, and then to develop and test the acceptability and feasibility of implementing

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				surgeons responded to survey		structured feedback sessions as a means to encourage a culture of performance excellence, with the aim to maintain high performance standards. ANZSCTS is a national Cardiac Surgery Database Program aims to reduce variation in clinical performance, and to improve patient outcomes following surgery, by providing feedback on key performance indicators through comparison to other participating Units
	Ross et al. ¹¹ 2017 UK	National (NHS)	Mixed methods: qualitative analysis of semi-structured interviews; quantitative analysis of online structured surveys	58 physicians	6 months	To identify consultant nuclear physicians' and radiologists' attitudes and motivation with regard to participation in the NHS National PET-CT Audit Programme. The National PET-CT Audit requires that 10% of all clinical reports on PET-CT scans in the programme be independently and externally audited.
	Steele et al. ¹⁴ 2019 USA	Multiple hospitals	Quantitative analysis of surveys of physicians who had previously participated in RPPR	574 physicians	20 months	To describe the Rural Physician Peer Review (RPPR) Program developed by the Texas A&M Rural and Community Health Institute and present it as an example of a program that could be modified and implemented in northern Ontario hospitals.
Group	Gerteis et al. ¹⁵ 2018 USA	Multiple hospitals across 7 regions	Mixed methods: quantitative analysis of web and mail surveys, qualitative analysis of in-depth interviews	497 primary care practices, 2,200 clinicians	48 months	To examine the challenges, uses, and limitations of quarterly Medicare claims-based performance feedback reports generated for practices participating in the Comprehensive Primary Care initiative from 2012 to 2015. Goals of feedback reports were to strengthen primary care, improve health for populations, lower costs, and improve patients' and provider's experience.
	Gitkind et al. ¹⁶ 2014 USA	Hospital	Quantitative analysis of number of physicians-led audits	1909 audits, 256 physicians	10 months	To describe the barriers and facilitators associated with implementing a physician-led audit program. Goals of the audit program were to train and engage physician leaders so that they can perform the audits themselves and encourage others to do them.

	Author Year Country	Level of Implementation	Study Design	Sample	Implementation Time Frame of Audit and Feedback Program	Objective and Design of Audit and Feedback Program
	Mwita et al. ¹⁸ 2013 Africa	Hospital	Retrospective quantitative analysis of patient case notes; qualitative analysis of group and individual discussions with the physicians	224 patient cases	5 months	To explore the use of audit and feedback as a quality improvement strategy for reducing the knowledge practice gap in hypertension care in a resource poor setting.
Both	Lockyer et al. ¹⁰ 2011 Canada	Provincial	Qualitative analysis of focus groups, using grounded theory strategies	49 physicians from 7 focus groups	Not reported	To examine the external data sources that primary care physicians used to assess their performance. The purpose of the Practice Improvement Module (PIM) program is for physicians to compare their data to clinical practice guidelines and use this to implement a quality improvement intervention.
Not Reported	Bowie et al. ¹² 2010 UK	Multiple organizations across NHS	Qualitative analysis of semi-structured interviews and focus group interviews	21 audit advisors	Not reported	To explore clinical audit advisors' views and experiences of their role in supporting health care teams in the audit process.
	Hysong et al. ¹⁷ 2018 USA	Multiple hospitals (Veterans Affairs Medical Centers)	Qualitative analysis of semi-structured telephone interviews	48 care providers (facility director, primary care chief, physicians, nurses)	Not reported	To identify patterns in mental models of current feedback practices (provided through External Peer Review Program [EPRP]) within high- and low-performing healthcare facilities. EPRP is a "random chart abstraction process conducted by an external contractor to audit performance at all Veterans Affairs facilities on numerous quality of care indicators, including those related to compliance with clinical practice guidelines".
	Ross et al. ¹³ 2014 UK	National (NHS)	Qualitative analysis of semi-structured interviews	13 physicians	6 months	To identify barriers and facilitators that influence physicians' engagement with the National NHS PET-CT Audit Programme. The National PET-CT Audit requires that 10% of all clinical reports on PET-CT scans in the programme be independently and externally audited.
	Voeten et al. ¹⁹ 2019 Netherlands	National	Quantitative analysis of online surveys	109 surgeons	Ongoing	To identify barriers and facilitators that influence participation in a nationwide multidisciplinary Dutch Hip Fracture Audit designed to reduce hip fracture patients by improving quality of care.

3.1 Feedback delivery

Several studies underscored the importance of providing individually tailored feedback using effective interpersonal and communication skills. Feedback that was individually tailored was generally associated with increased understanding, while non-individualized feedback letters led to confusion. Broadly, increased communication and collaboration led to an enhanced understanding of policies, processes, and audit findings. Feedback that was delivered using a supportive approach or using neutral words (e.g., “discrepancy” instead of “error”) was more conducive to engagement and discourse. Successful feedback delivery involved interpersonal and communication skills; feedback delivery training was recommended.⁸

Studies differed with respect to how they delivered feedback (e.g., e-mail, paper report) and what they found to be more effective. For example, some studies found e-mails to be effective, while others did not. Some suggested the ineffectiveness of emails in certain programs may have been due to physicians not reading e-mails. Other studies found in-person discussions to be more effective than feedback letters, although one study found no difference between the two approaches due to low attendance at in-person feedback sessions.⁶

3.2 Perceived value

Perceived validity and relevance of aggregate data as a performance metric was a common barrier to implementing feedback. Broadly, physicians viewed aggregate data as inaccurate reflections of the quality of care and therefore an inadequate source of feedback. Reasons for this included finding data stemming from EMRs to be untrustworthy, aggregate data not reflecting care within their respective departments and the care of their individual patients, and reports not being generated in a timely fashion. This was exemplified in one study where multiple physicians used one computer login, thereby causing the data to not accurately reflect an individual’s actual practice.⁵ Only a minority of the studies reported that physicians viewed aggregate data to be a helpful indicator of the quality of care.

Across studies, the value of audit and feedback was generally perceived as low. Among physicians that reported finding the process useful for reflecting on their practice, often times the reported value stemmed primarily from the ability to validate their current practice and feel reassured that they are performing well and similarly to their peers. One study noted that half of the participating physicians provided examples of actions resulting from the report; however, this was not a common finding across other studies.⁶ In cases where physicians reported the feedback process to not be valuable, this was often due to their concerns about validity of the feedback data and relevance to their individual patients.

3.3 *Physician factors*

Several barriers and facilitators emerged with respect to physician factors, including engagement, resistance to change, and psychological factors. Across studies, practitioners were more likely to engage with the audit and feedback process if they saw it as valuable, useful to their practice, and aligned with their priorities. For example, one study noted that audit worked well when it was led by their team for their own clinical purposes, rather than when it was mandatory and imposed by management.¹² Support and collaboration were frequent themes that emerged across all studies, with adoption of more collaborative and supportive approaches facilitating more positive and active engagement with the audit process. Barriers to engagement often centered around knowledge, such as lack of knowledge and expertise about how to conduct an audit, lack of knowledge of expectations for what is considered good or bad performance, and lack of knowledge about what feedback is available.

Feelings of anxiety/threat and hypervigilance emerged as psychological barriers to audit and feedback, whereas trust, credibility, recognition, and confidence, emerged as facilitators. Notably, being part of supportive and collaborative clinical audit environments was conducive to physicians experiencing higher levels of trust, engagement, and reduced anxiety. However, unsupportive audit environments resulted in a culture of blame and led to more defensive behavior on the part of physicians.^{11,13} Supportive environments appeared to make the difference between the audit data making physicians feel reassured about their performance or giving them confidence in how to

improve, or making them feel judged or threatened when poor performance was identified. Physicians also expressed a desire for positive recognition for their work; and some felt that participating in an audit increased their professional standing compared to their peers that did not participate.

Across studies, resistance to change was reported to be tied to the perceived validity, accuracy, and timeliness of the audit data (e.g., aggregate data released every few months were not seen as useful for informing individual patient care). Audit data were described as not being useful for changing practice when it was at odds with the practitioner's clinical opinion or when audit was not viewed as a priority, particularly when performance was already viewed as being good. Resistance to change was also observed by physicians shifting the responsibility of implementing feedback onto others. Other reasons for physicians not wanting to change their practice included: thinking that implementing the feedback was not their responsibility, not having buy-in from their superior, or thinking that the factors driving resource use are not amenable to change (e.g., hospital admissions).

3.4 Infrastructure

Infrastructure-related barriers and facilitators emerged with respect to leadership, policies, training, and feedback delivery systems. Barriers associated with leadership centered around the leaders' involvement in the audit process and their ability to communicate feedback effectively. Several studies noted the importance of the leaders clearly communicating the purpose of the audit, as well as roles and responsibilities associated with it. Leaders' commitment to the audit and utilizing it to instill change, rather than conducting the audit for the sake of a "tick box exercise", was seen as important. In general, there was a sense across studies that management-imposed audits can be perceived as dictatorial and are therefore met with resistance. Leaders' ability to provide comprehensive and meaningful feedback to physicians was also important; however, some physicians questioned the appropriateness of having their leader provide formative feedback to them.⁸ One study in particular highlighted the importance of leaders who provide feedback having good interpersonal and communication skills,

suggesting that training be recommended as a mandatory requirement prior to implementing a structured feedback process.⁸

Implementation barriers were also noted with respect to guidelines, training, and education. Several studies noted that there was a lack of, or limited number, of guidelines for implementing feedback. Others noted a lack of knowledge regarding audit methods, awareness of national audit agendas, as well as a lack of experience in delivering feedback and implementing it. One notable facilitator to delivering feedback sessions was scheduling them during established staff meetings to ensure good attendance.¹⁶ Feedback meetings that focused on learning from discrepancies rather than errors were conducive to a shared learning environment.¹³ With respect to feedback delivery systems, barriers to audit included multiple physicians using the same log-on, difficulty associated with extracting electronic prescription data, and concerns about validity of data from electronic medical records. Barriers to feedback included presenting the intervention on the computer screen at the time of ordering (deemed to be ineffective) and presenting feedback data on websites; paper-based reports were viewed as preferable.

3.5 Resources

Barriers and facilitators related to resources emerged primarily with respect to staffing and workload, time, and finances. From a staffing and workload standpoint, high patient load, competing priorities, limited office resources, and limited administrative support were all noted across studies as barriers to implementing audit and feedback initiatives. Overall, whether physicians made use of feedback reports depended largely on the resources they had available. Lack of human resources and technical expertise were particularly challenging for small practices, whereas one study found that being part of larger medical groups and health systems was a facilitator for having more access to staff with the time, resources, and analytic capacity.¹⁵

From a time standpoint, timely and frequent feedback was reported across studies as being more useful and valued for patient management compared to when feedback is delayed. However, the process of auditing performance and producing feedback reports was viewed as time-consuming. Only two studies mentioned financial barriers. One study

noted cost or reimbursement/insurance as a barrier to implementing improvements identified during an audit program.¹⁴ Another study noted that financial support provided by the hospital board can serve as a facilitator to participating in a national audit.¹⁹

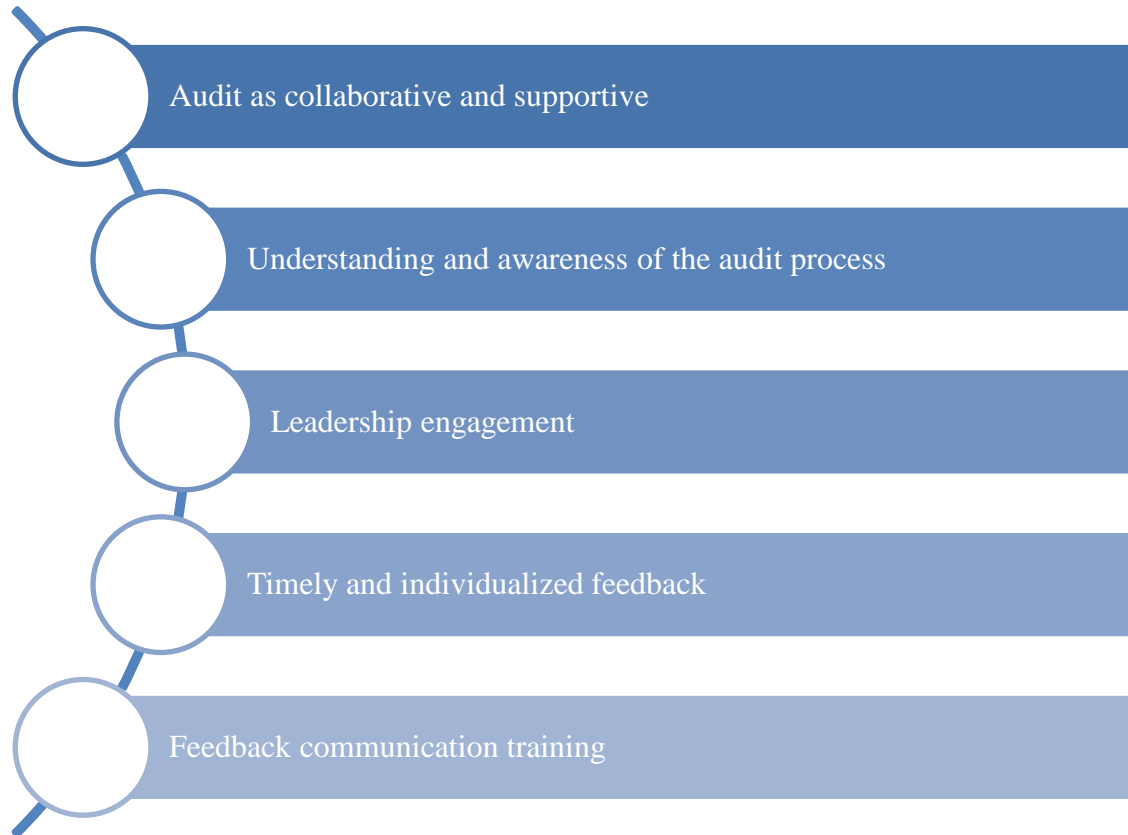
4 Implementation Implications

Based on the findings discussed above, there are several key implementation implications (

Figure 2). To minimize resistance and to increase engagement, audit should be conducted as a collaborative and supportive process that involves physicians at an early stage of implementation. For example, this may involve approaching physicians to highlight the existing problem and asking them to provide feedback on the proposed audit. A collaborative approach may facilitate the creation of a common goal for the audit and may minimize the likelihood of physicians viewing the audit as something that is imposed by management. Additionally, physicians may be unaware of what the audit process entails, so clarification should be provided to increase understanding, awareness and therefore uptake.

Leadership should be actively engaged in the audit process and demonstrate their commitment to utilizing the audit findings after the data are gathered. Leadership engagement may help to minimize the perception that the audit is simply being done as a “tick box” exercise and, instead, increase the perception of the audit as a means to an end. After completing the audit phase, feedback would ideally be provided individually to increase understanding, in a non-threatening manner to decrease resistance, and in a timely fashion to increase relevance to physicians’ practice. Particularly in instances where the feedback is provided verbally, individuals providing it may benefit from feedback communication training.

Figure 2. Factors promoting success of audit and feedback programs



5 Conclusions

Across studies, barriers to audit implementation were generally linked to how much physicians valued the audit process, whether they viewed the feedback as relevant to their practice, and whether they had the resources (e.g., time) and support from leadership to implement it. Facilitators to audit implementation included having buy-in and understanding of the process from physicians and presenting the feedback in individualized and non-threatening manner. Notably, studies that were able to turn the audit process into a collaborative and supportive environment reported more positive and engaged audit experiences. However, as the effectiveness of the audits were not examined as part of this review, it is difficult to gauge whether physician engagement with the audit is linked to them ultimately implementing the audit feedback to improve their practice.

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7 Appendix

Full Search Strategy

Audit and Feedback MEDLINE March 9 2020

1. *clinical audit/ or *medical audit/
2. *Feedback/
3. *formative feedback/
4. *Peer Review, Health Care/
5. 1 or 2 or 3 or 4
6. Practice Patterns, Physicians'/
7. Clinical Competence/ or exp Medical Errors/ or exp Health Services Misuse/
8. Professional Practice/
9. "Quality of Health Care"/ or Guideline Adherence/
10. Quality Improvement/
11. exp Physicians/
12. 6 or 7 or 8 or 9 or 10 or 11
13. 5 and 12
14. ((audit* or clinical review* or feedback or peer review* or performance management or performance review*) adj5 ((behavio* adj1 chang*) or clinical competence or doctor* or guideline adherence or medical error* or physician* or (practice adj1 chang*) or professional practice or quality improvement or resident*)).tw,kf.
15. 13 or 14
16. limit 15 to (english language and yr="2010 -Current")
17. limit 16 to (editorial or letter)
18. 16 not 17
19. limit 18 to "review articles"
20. 18 not 19
21. ((critical or scoping or systematic) and (overview* or review or synthesis)).ti.
22. 18 and 21
23. 18 or 22
24. (approach* or framework* or implementation* or infrastructure or initiative* or intervention* or model or models or process* or program* or resource requirements or strategy or strategies).tw,kf.
25. (national or hospital-based or province or state-wide or systems-based).tw,kf.
26. 24 or 25
27. 23 and 26

Audit and Feedback EMBASE March 9 2020

1. *clinical audit/
2. *constructive feedback/
3. *"peer review"/
4. 1 or 2 or 3
5. clinical competence/ or unnecessary procedure/ or exp medical error/
6. clinical practice/
7. professional practice/ or medical practice/

8. professional standard/ or professionalism/
9. health care quality/ or clinical effectiveness/
10. total quality management/ or quality control/
11. protocol compliance/
12. exp physician/
13. 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14. 4 and 13
15. ((audit* or clinical review* or feedback or peer review* or performance management or performance review*) adj5 ((behavio* adj1 chang*) or clinical competence or doctor* or guideline adherence or medical error* or physician* or (practice adj1 chang*) or professional practice or quality improvement or resident*)).tw,kw.
16. 14 or 15
17. limit 16 to (english language and yr="2010 -Current")
18. limit 17 to (conference abstract or editorial or letter or "review")
19. 17 not 18
20. ((critical or scoping or systematic) and (overview* or review or synthesis)).ti.
21. 17 and 20
22. 19 or 21
23. (approach* or framework* or implementation* or infrastructure or initiative* or intervention* or model or models or process* or program* or resource requirements or strategy or strategies).tw,kw.
24. (national or hospital-based or province or state-wide or systems-based).tw,kw.
25. 23 or 24
26. 22 and 25

Figure 1. PRISMA Flow Chart of Included Studies

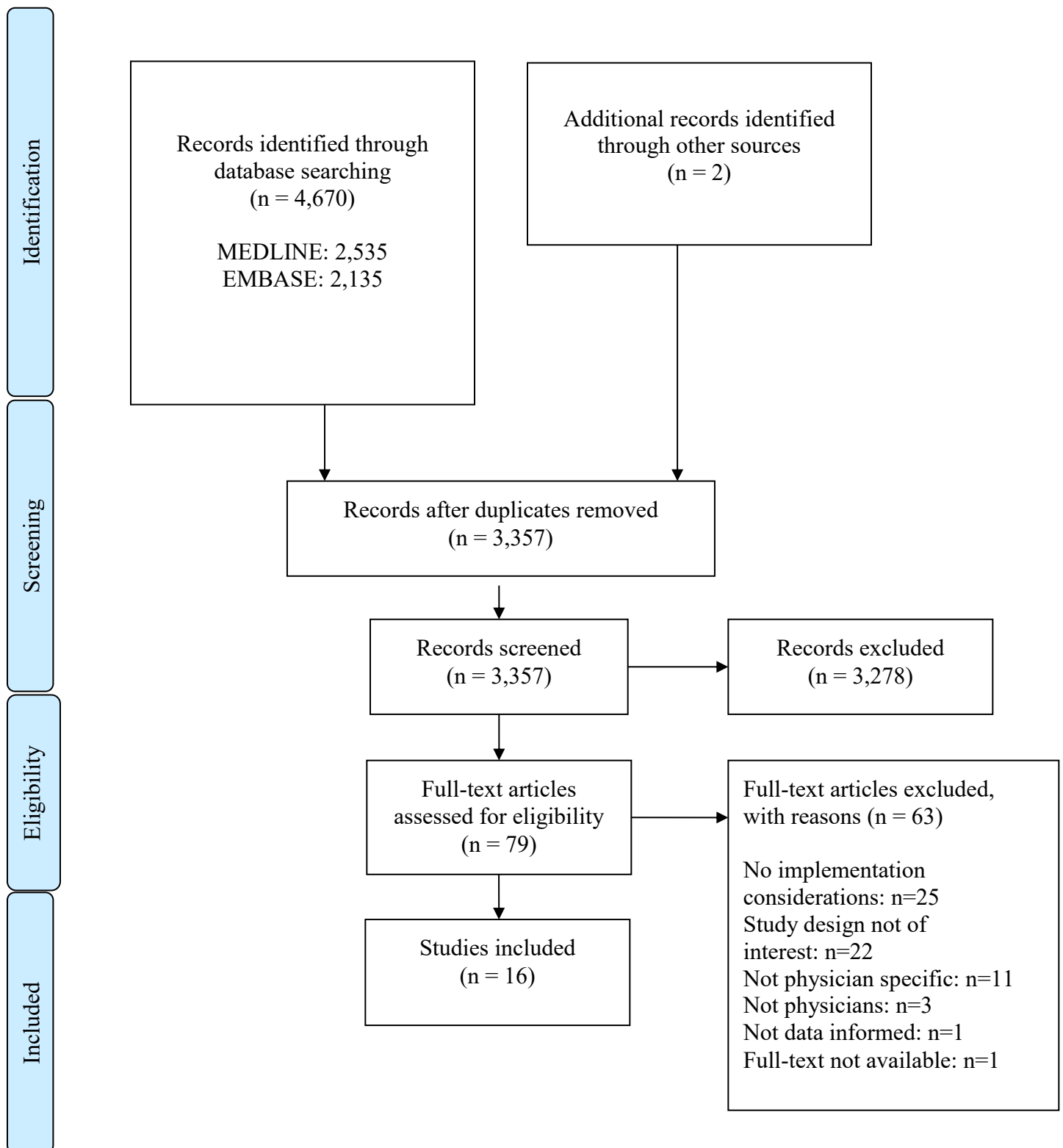


Table 1. List of Excluded Studies

Author (Year)	Reason for Exclusion
Ali et al. (2014) ²⁰	No implementation considerations
Anchalia et al. (2011) ²¹	Not physician specific
Armiento et al. (2018) ²²	No implementation considerations
Barnett et al. (2014) ²³	Study design not of interest
Belizan et al. (2011) ²⁴	Not physicians
Bond et al. (2019) ²⁵	Study design not of interest
Borges et al. (2017) ²⁶	No implementation considerations
Burch et al. (2017) ²⁷	Study design not of interest
Canavan et al. (2010) ²⁸	Study design not of interest
Chan et al. (2014) ²⁹	Not physician specific
Chang et al. (2018) ³⁰	No implementation considerations
Chen et al. (2011) ³¹	Not physician specific
Chesluk et al. (2015) ³²	Study design not of interest
Clay-Williams et al. (2020) ³³	No implementation considerations
DiVall et al. (2012) ³⁴	Study design not of interest
Dossett et al. (2018) ³⁵	Study design not of interest
Elliott et al. (2017) ³⁶	No implementation considerations
Elnenaei et al. (2016) ³⁷	No implementation considerations
Estrada et al. (2011) ³⁸	Study design not of interest
Evans et al. (2019) ³⁹	No implementation considerations
Fradgley et al. (2020) ⁴⁰	Study design not of interest
Francois et al. (2018) ⁴¹	No implementation considerations
Gallagher et al. (2014) ⁴²	No implementation considerations
Garg et al. (2012) ⁴³	Not physician specific
Ghaderi et al. (2013) ⁴⁴	No implementation considerations
Glidewell et al. (2018) ⁴⁵	No implementation considerations
Hoopes et al. (2015) ⁴⁶	No implementation considerations
Huey et al. (2017) ⁴⁷	Study design not of interest
Hysong et al. (2012) ⁴⁸	Study design not of interest
Ivers et al. (2010) ⁴⁹	Study design not of interest
Ivers et al. (2013) ⁵⁰	No implementation considerations
Kabore et al. (2016) ⁵¹	Study design not of interest
Kabore et al. (2019) ⁵²	No implementation considerations
Kamradt et al. (2018) ⁵³	Study design not of interest
Kelly et al. (2019) ⁵⁴	Not physician specific
Leung et al. (2017) ⁵	Not physician specific
Lorenatto et al. (2016) ⁵⁵	Study design not of interest
Munn et al. (2015) ⁵⁶	No implementation considerations
Nag et al. (2019) ⁶	Study design not of interest
O'Donoghue et al. (2014) ⁵⁷	Not physicians
O'Malley et al. (2016) ⁵⁸	No implementation considerations

Pai et al. (2013) ⁵⁹	Not physician specific
Pooley et al. (2019) ⁶⁰	Not data informed
Poss-Doering et al. (2020) ⁶¹	No implementation considerations
Pulver et al. (2011) ⁶²	Not physicians
Reszel et al. (2019) ⁶³	Study design not of interest
Rivas et al. (2010) ⁶⁴	No implementation considerations
Rutherford et al. (2011) ⁶⁵	No implementation considerations
Sargeant et al. (2015) ⁶⁶	Study design not of interest
Sargeant et al. (2011) ⁶⁷	No implementation considerations
Sebo et al. (2017) ⁶⁸	No implementation considerations
Shepherd et al. (2015) ⁶⁹	Study design not of interest
Sinha et al. (2019) ⁷⁰	Study design not of interest
Siriwardena et al. (2014) ⁷¹	Study design not of interest
Smiddy et al. (2019) ⁷²	No implementation considerations
Taylor et al. (2016) ⁷³	Full-text not available
Tinmouth et al. (2012) ⁷⁴	No implementation considerations
Van Diem et al. (2012) ⁷⁵	Not physician specific
Van Engen-Verheul et al. (2017) ⁷⁶	Not physician specific
Van Overveld et al.(2017) ⁷⁷	Not physician specific
Wagner et al. (2017) ⁷⁸	No implementation considerations
Wagner et al. (2019) ⁷⁹	Not physician specific
Zuccato et al. (2012) ⁸⁰	Study design not of interest