The dictated operative note: A survey of resident training perceptions and experiences
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Citation

Abstract
Background: Despite its importance, evidence indicates that both attending surgeon and resident operative dictations are poor. Since no previous studies in this area have been reported, we aimed to survey general surgery residents of all levels about their dictation experience and perceptions.

Methods: A two-page survey was sent to general surgery residents at the University of Manitoba, Canada.

Results: 21 (100%) residents completed the survey. 100% of junior residents and 25% of seniors felt their dictations needed improvement (p=0.0002). 92% of juniors wanted further training in dictation as compared to 5% of seniors (p=0.00004). 91% emulated old dictations to improve their own. Only 43% had ever received feedback on their dictations.

Conclusions: Junior residents are less comfortable with and want more training in dictation. Methods that improve operative dictation are best employed in that cohort. Residents also receive little feedback and use emulation to improve their dictation skills. This perpetuates the low quality of operative dictations.

INTRODUCTION
The dictated operative report is an essential form of surgical communication. It must be prepared in a comprehensive and concise manner following any invasive procedure since it has important implications for the provision of additional health care and planning future operative procedures. Indeed, the quality of health care may be impaired in the absence of communication. Furthermore, operative notes have an important role in research projects, quality assurance, billing, and medical-legal conflicts.

There is, however, evidence to suggest that the overall quality of dictated operative reports is poor. It is not uncommon to find that critical details of operative procedures are omitted whereas superfluous aspects are detailed in excess. In a recent review, only 45.9% of items deemed important by a consensus panel could be retrieved from operative dictations while less important information was available up to 97% of the time.

Despite the low quality, the majority (82%) of surgical programs report no formal education on operative reporting as part of their residency curriculum. Furthermore, a survey of program directors indicated that most trainees learn to dictate from more senior residents (32%), attending staff (24%), or by reading other operative notes (43%).

Despite a recent focus on student-centered education in adult learning, little is known about the perceptions of surgical trainees when it comes to their learning and performance in operative dictation. Specifically, review of the available literature shows no investigation into this important aspect of postgraduate general surgery training. This survey aims to assess general surgery residents at a typical Canadian academic center with respect to their perceptions of operative dictation and current training methods.

METHODS
General surgery residents at the University of Manitoba, Canada, were questioned regarding their comfort level with dictation and the perceived quality of their operative reporting. Residents were asked to rate their response to four statements on a five point Likert Scale.

Likert results were subjected to subgroup analysis. Results of senior (PGY 4, 5, 6) and junior (PGY 1, 2, 3) residents were compared by ranking the responses (Strongly Disagree: 1 of 5
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1 point, Disagree: 2 points, Neutral: 3 points, Agree: 4 points, Strongly Agree: 5 points). Using a two-tailed student T-test to compare the two groups, p-value of less than 0.05 was used to define statistical significance.

Residents were also asked to identify what, if any methods they employed to improve their dictations. Finally, they were questioned regarding any formal feedback they had ever received on the quality or the content of their dictations.

This study was approved by the Health Research Ethics Board at the University of Manitoba.

RESULTS

Of the 21 eligible general surgery residents at the University of Manitoba, all responded to the study questionnaire (100%).

In this census, 72% (n=15) felt their dictations were in need of improvement. While 62% (n=13) said they would like formal training in operative dictations to be incorporated as part of the training curriculum. Subgroup analysis between senior (PGY 4, 5, 6) and junior (PGY 1, 2, 3) residents revealed 100% of junior residents (n=13) felt that their dictations were in need of improvement, however only 25% of senior residents (n=2) agreed with this statement (p=0.0002) (Figure 1).

Figure 1
Figure 1: Responses to ‘my dictations are in need of improvement’ by training level.

In addition, 92% (n=12) of junior residents wanted further training in dictation while only a single senior resident agreed (13%, p=0.00003). Thirty-eight percent (n=3) of the senior residents disagreed, stating that they did not want further training in this area (Figure 2).

Figure 2
Figure 2: Responses to “I would like further training in operative dictation”.

When questioned about their comfort with operative dictation, 88% (n=7) of senior residents indicated that they were comfortable while 62% (n=8) of juniors were not (Figure 3).

Figure 3
Figure 3: Responses to “I am comfortable with operative dictation”.

Additionally, 62% (n=8) of junior residents disagreed with the statement “my dictations are excellent”, while 62% (n=5) and 25% (n=2) of seniors were ambivalent or agreed, respectively (Figure 4).

Figure 4
Figure 4: Responses to “my dictations are excellent”.
Fifteen (71%) residents used more than one method to improve their dictations. The most commonly identified method was review of old operative dictations (91%, n=19). Forty-eight percent (n=10) of respondents reported they had observed others while dictating. Sample operative reports from published sources were also used by 45% of residents to guide their own reporting. Other methods included instruction from other residents and attending surgeons (Figure 5). Only a single resident (5%) reported receiving a formal lecture on the dictated operative report and this was at a different centre prior to joining our program.

**Figure 5**

Figure 5: Methods, by percentage of residents, used to improve operative dictations.

Nine (43%) of the residents reported that they had received formal feedback from an attending surgeon on the quality of their operative reports. Of those, three (33%) reported receiving feedback only once, while the remaining six (67%) received feedback less than ten times. Seven of the nine residents felt the feedback was useful. The others felt it was either too vague to be constructive or irrelevant (e.g., highlighting only punctuation or grammar).

**DISCUSSION**

In this study, only 43% of residents had ever received feedback on their dictations. Of those, 60% had received feedback only once and no resident had received feedback more than ten times in their entire residency. For the residents who did receive feedback, 20% did not find the feedback useful as it mainly focused on trivial mistakes (errors in grammar or punctuation) rather than commenting on the content or format of the dictation. This points to the need to improve both the quality and the quantity of feedback as it is a necessary and vital component of improving the quality of trainee learning.\(^{(6, 7, 8)}\)

Most residents in this survey learned to dictate from those around them, either by reading old reports by fellow residents and staff surgeons, or by observing others while dictating (Figure 5). This is consistent with the perceptions of program directors in both General Surgery and Obstetrics and Gynaecology.\(^{(5, 9)}\)

This pattern of learning is not confined to surgical training. In a survey of radiology residents, 98% reported no formal or organized reporting instruction. The majority (over 90%) indicated they were instructed through an apprenticeship model and learned to dictate by observing their peers, senior residents and staff. However, residents felt that this model was deficient in that 85% said they rarely or never received feedback on their reports. Those that did receive feedback felt that it mostly involved correction of minor problems (for example a missing date). Overall, 93% of residents in this report were dissatisfied with the current method of teaching.\(^{(10)}\)

Learning by emulation relies on the assumption that senior residents and staff surgeons are dictating adequately. This hypothesis is discordant with existing data that indicates that both resident and staff surgeon operative reports are poor.\(^{(2, 4, 11)}\) Since residents appear to be receiving inadequate feedback, it is concerning that junior trainees are learning to dictate from those more senior to them. Surely, this serves only to perpetuate the low quality of operative dictation.

It is no surprise that most learners (62%) want further training in operative dictation. The fact that very few senior residents wanted instruction in this area is interesting. In addition, while 62% of junior residents felt uncomfortable with dictation, 88% of senior residents felt that they were comfortable (Figure 3) and 25% of seniors actually felt that their dictations were excellent (Figure 4). This indicates, that at the very least, interventions attempting to improve operative dictation in surgical residencies should be offered in junior training levels.

Senior resident comfort with dictation is somewhat predictable. With repetition of any task, trainees are expected to become more comfortable with their performance. However, this result should be viewed with caution as a learner’s self-perceived mastery does not necessarily reflect true superiority in learning outcomes.\(^{(12, 13)}\) Currently, it is difficult to accurately evaluate true performance in dictation as there are no validated tools in the...
literature that measure the quality of an operative note.

While the results of this small study are convincing, there are some limitations. The most apparent is that the results are drawn from a small population at a single institution. However, based on this preliminary survey, items will be refined so that they may be extended to all general surgery residents in programs across Canada. This will not only serve to increase sample size but allow the determination of regional differences in training practices between general surgery programs throughout the nation. Once analyzed, this data will be helpful for developing methods to improve operative dictations training in surgical programs.

The importance of operative dictation in surgical communication is irrefutable. However, despite the focus on student-centered medical education, little effort has been expended in determining learner perceptions of training for this important skill. The results of this preliminary study suggest that junior residents are less comfortable with and want more training in dictation skills. Training methods aimed at improving operative dictation may be best employed in this cohort. Residents also receive little feedback and use emulation to improve their dictation skills. As this may perpetuate the low quality of operative dictation, surgical programs may wish to employ measures that improve both the quantity and quality of feedback.

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References

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