

Simplifying Anesthesia Supply Management Using a Cloud-Based Service

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Background: Many institutions still rely on paper, pagers, and IP phones to communicate equipment and supply requests during operating room (OR) turnovers, but these methods have limitations. Technology companies such as Google and Apple are now regularly introducing new products and services which are designed to enhance productivity. Utilizing these new, cost-effective technologies in the OR could help improve anesthesia supply management during turnovers.

Methods: Google Keep, a cloud-based service for creating notes and lists, was used to create a standardized list of all anesthesia-related equipment used at our institution for each OR (see Figure 1). Each list was titled according to the OR number and the case number. Within the list, a checked item signified a completed task while an unchecked item signified an actionable task. Participants accessed Google Keep using mobile devices (e.g., smartphones, tablets) and computers. It was the responsibility of the anesthesia provider (i.e., residents, CRNAs, attendings) to uncheck items as needed for their next case. During OR turnover and each morning, the anesthesia technicians would complete unchecked items. After a week-long trial, feedback and comments were obtained from 3 technicians and 6 providers regarding the ease of use, participant satisfaction, and convenience.

Results: Participants reported that Google Keep was easy to use since all that was required was checking and unchecking items and updating the case number on the title of the list. Users also commented on its convenience to be accessed from anywhere on a mobile device. Technicians also appreciated how they were not being called as often. All participants emphasized its utility for the first case. A common complaint was the lack of notification/alert system for when a change was applied.

Conclusion: The cloud-based service, Google Keep, seemed to provide a simpler and more convenient method of communication between anesthesia providers and technicians during OR turnovers and morning setups. Future work will aim to further improve cloud-based communication by attempting to create a notification system, installing tablets in frequently visited locations within the OR, and expanding its use to offsite locations. Moreover, a

comparison study looking at OR efficiency and anesthesia ready time before and after implementation of Google Keep will be explored.

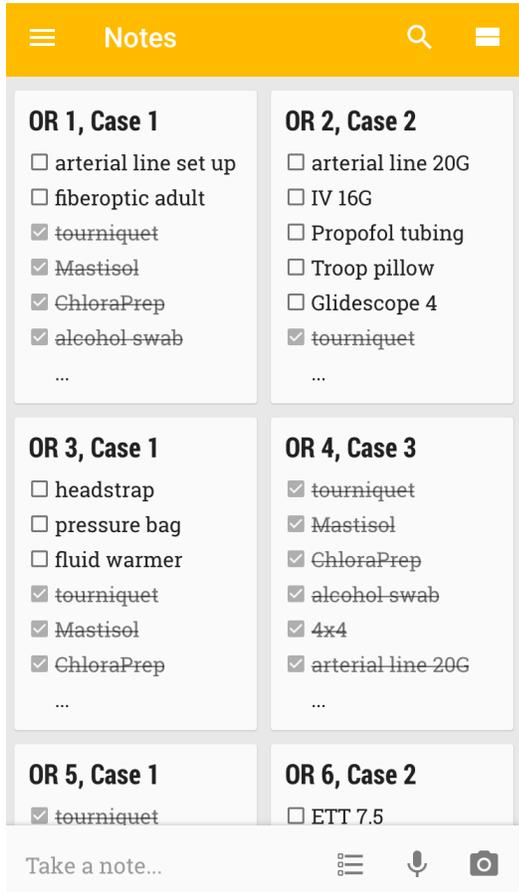


Figure 1

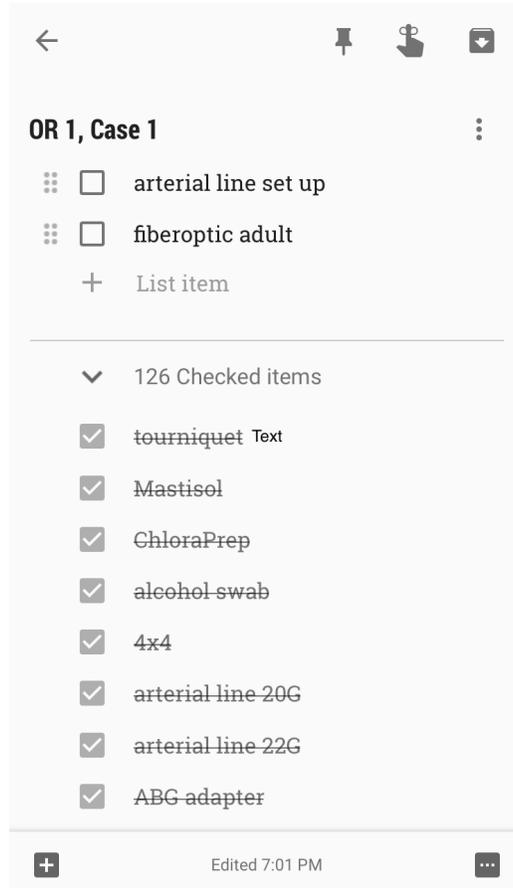


Figure 2