(20-7542) Hygienic Keyboards - Designed to reduce infections, but at what price?


Loma Linda University Health
Objective

- Compare accuracy, speed, and error correction between a flat hygienic keyboard and a conventional keyboard.

Methods

- 40 participants (physicians, nurses and medical students) performed a one-minute typing test on each keyboard.

- Primary outcomes: words per minute (WPM), accuracy, and error correction rate
  - Accuracy = incorrectly typed characters / total characters typed

- The clinical impact of the two different keyboard types was determined by measuring the number of typed words for every patient admitted to the urology service for 30 days.
Results

• During a month, an average of 526 (43-9480) words with a total of 35,245 words were typed for 67 patients.
• Applying word and error rates to a one-year period, the conventional keyboard would save 17.7 hours and 19,032 less errors compared to the flat “hygienic” keyboard.

Conclusions

• Keyboards that allow easy sterilization between uses have become essential to the prevention of infectious disease transmission during the COVID-19 era.
• However, the HF keyboard comes at the price of a 16% reduction in typing speed and 5% greater error rate.
• The optimal keyboard for reducing infection transmission would not compromise speed, accuracy or lead to increased number of medical errors.