Personalized Service Line Mobile Application Kickstarts Clinical Documentation

Mokshal Porwal, BS Medical Student, Class of 2023; **Christina Feller, BS, BA** Medical Student, Class of 2023;
Julie M. Kolinski, MD, Assistant Professor, Department of Medicine and Pediatrics;
Grant P. Sinson, MD, Associate Professor, Director of Neurotrauma, Director of Outpatient Clinic Operations, Department of Neurosurgery

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Learning Objectives

1) Identify innovative techniques to capture quality metrics through direct clinical documentation improvement and provider engagement.
2) Describe the use of technology to simplify and improve the documentation process for providers.

Problem

Quality improvement is not a one-size-fits-all solution in healthcare — largely due to different needs and approaches among teams, service lines and departments. Generic educational sessions and booklets often generate only partial interest and motivation for providers.

Goal

Working with our providers' individual departments, we facilitated improvement in their clinical documentation through a brief animated informational video and a user-convenient mobile application for custom interventions.

Bifold Intervention

See Figure 1 & 2

Technology works!

After providing brief education to our providers and rolling out a mobile app, our hospital's CMI increased! Plus, engagement between providers and CDI specialists improved.
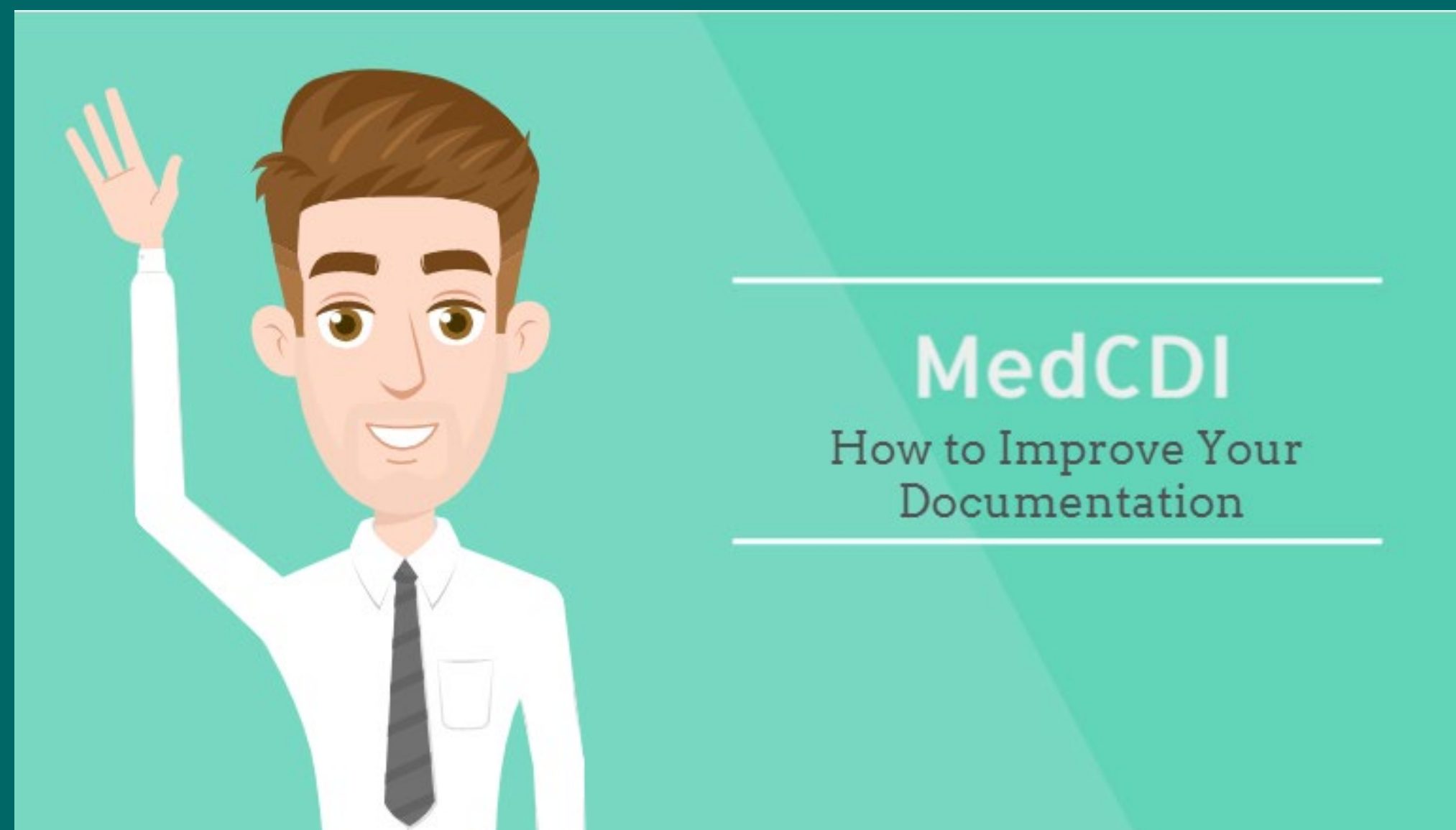

Figure 1: Brief, targeted educational video (overview of CDI terms, coding, & Vizient)
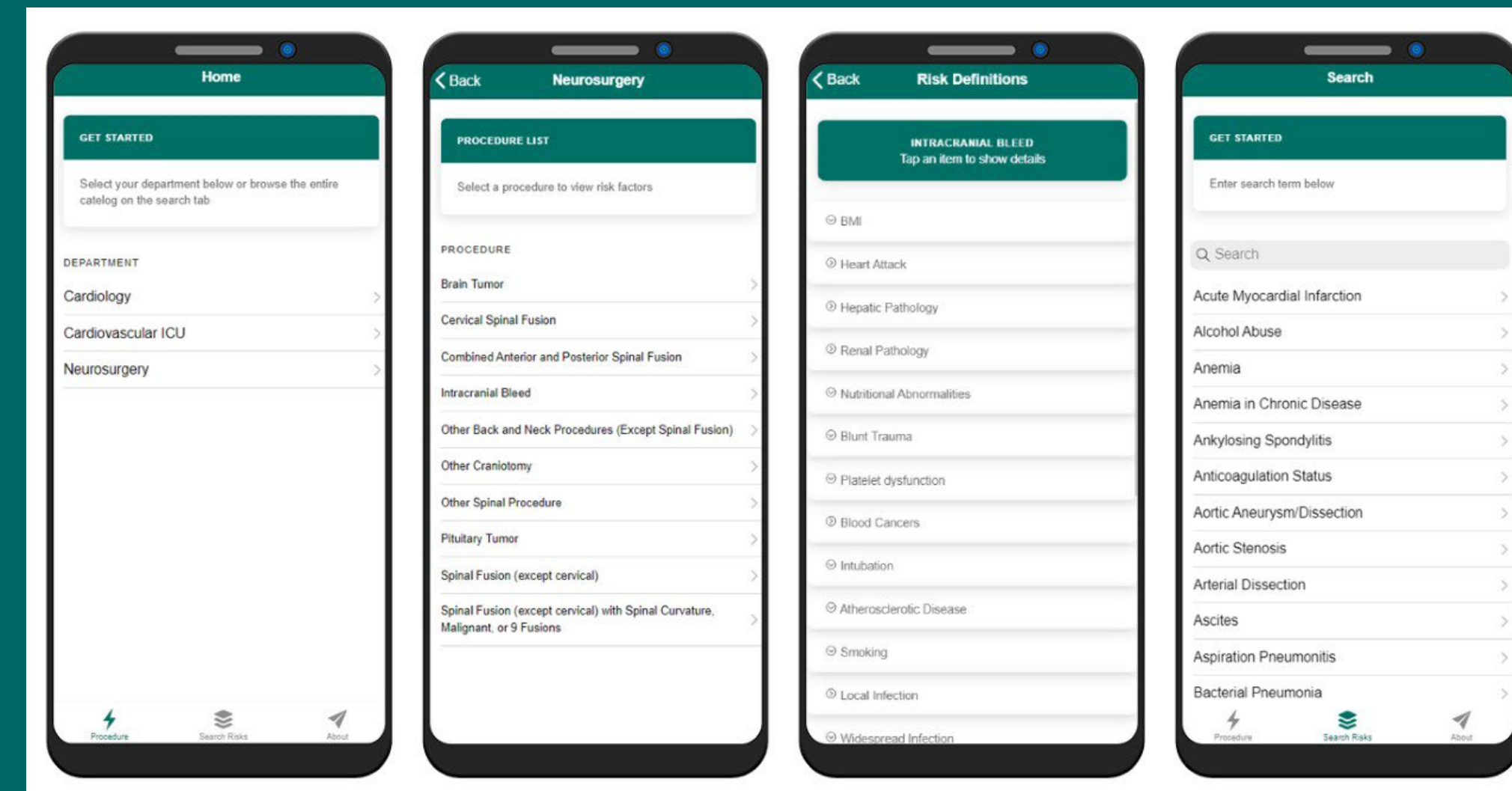

Figure 2: Web-based application

Outcomes

Within the NICU, we observed increased engagement between providers and CDI specialists; additionally, CMI increased from 0.1685 to 0.2259 after intervention.

Survey results from faculty, residents, and APPs (n=16) revealed an average score of 6.13 when asked if they learned new information (on a scale of 1-7; 1 = strongly disagree and 7 = strongly agree), 5.75 when asked if they became more interested in Vizient, and 5.81 when asked if the technological modality was an effective tool.

Takeaways

1) While the brief animation was effective for initial learning, an even better tool is required for more impactful changes in clinical documentation.
2) With the assistance of modern technology, providers can more accurately document and understand the coding process, impact quality metrics and improve CMI.

Speaker Contact Information:
Dr. Sinson: gsinson@mcw.edu
Dr. Kolinski: jkolinski@mcw.edu

References
1. Abdulla S, Simon N, Woodhams K, Hayman C, Oumar M, Howroyd LR. Improving the quality of clinical coding and payments through student doctor-coder collaboration in a tertiary haematology department. BMJ Open Qual. 2020. 9: e000723
2. Giguère A, Légaré F, Grimshaw J, Turcotte S, Fiander M, Grudniewicz A. Printed educational materials: effects on professional practice and healthcare outcomes. Cochrane Database Syst Rev. 2012. 10: CD004398

Barriers to Accurate Coding and Capture of Quality Metrics

1. Documentation Issues
   - Accurate documentation of all complication or comorbidity (CCs) or major complication or comorbidity (MCCs)
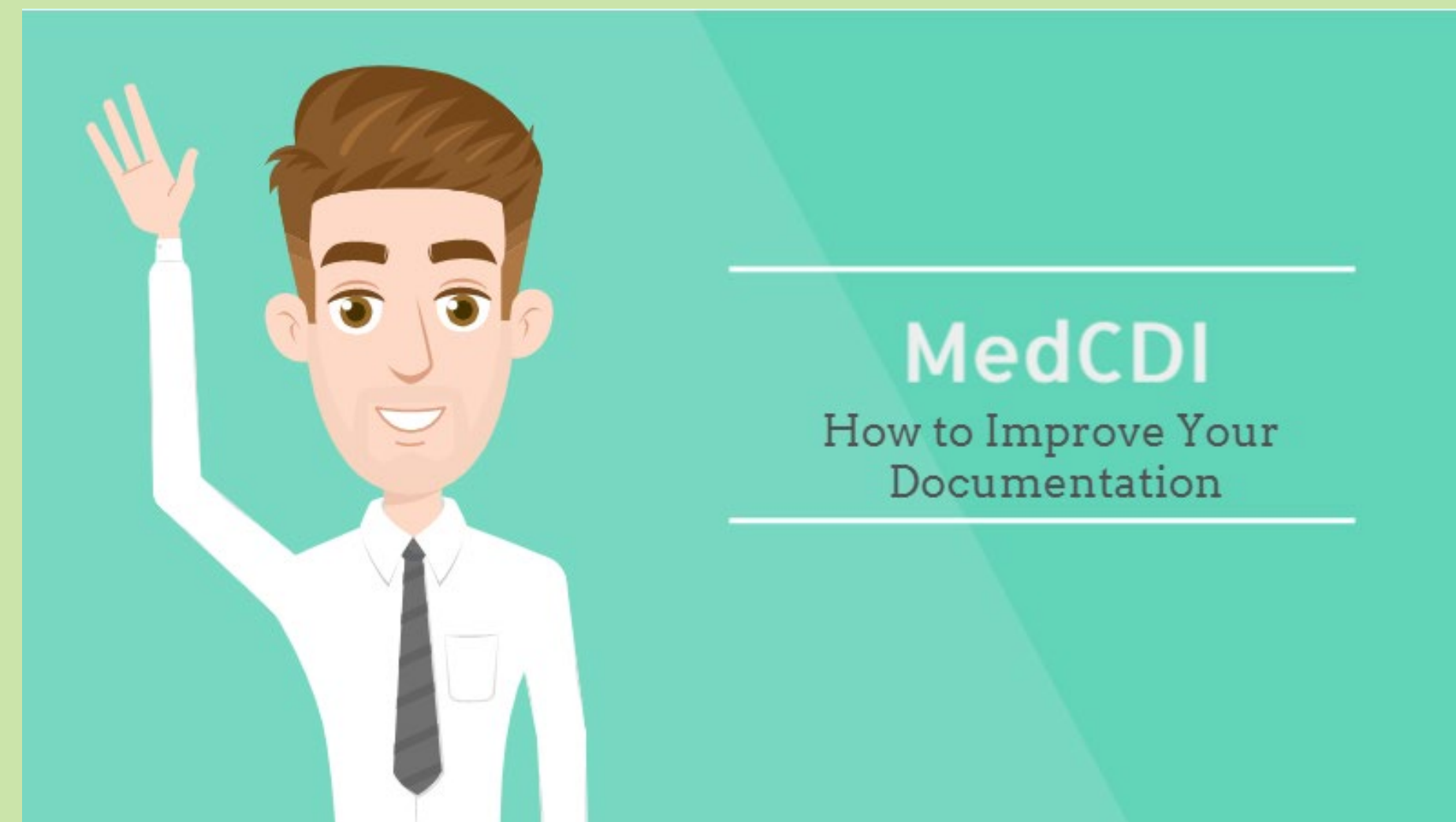
2. Coding Issues
   - Language barrier

3. Educational Issues
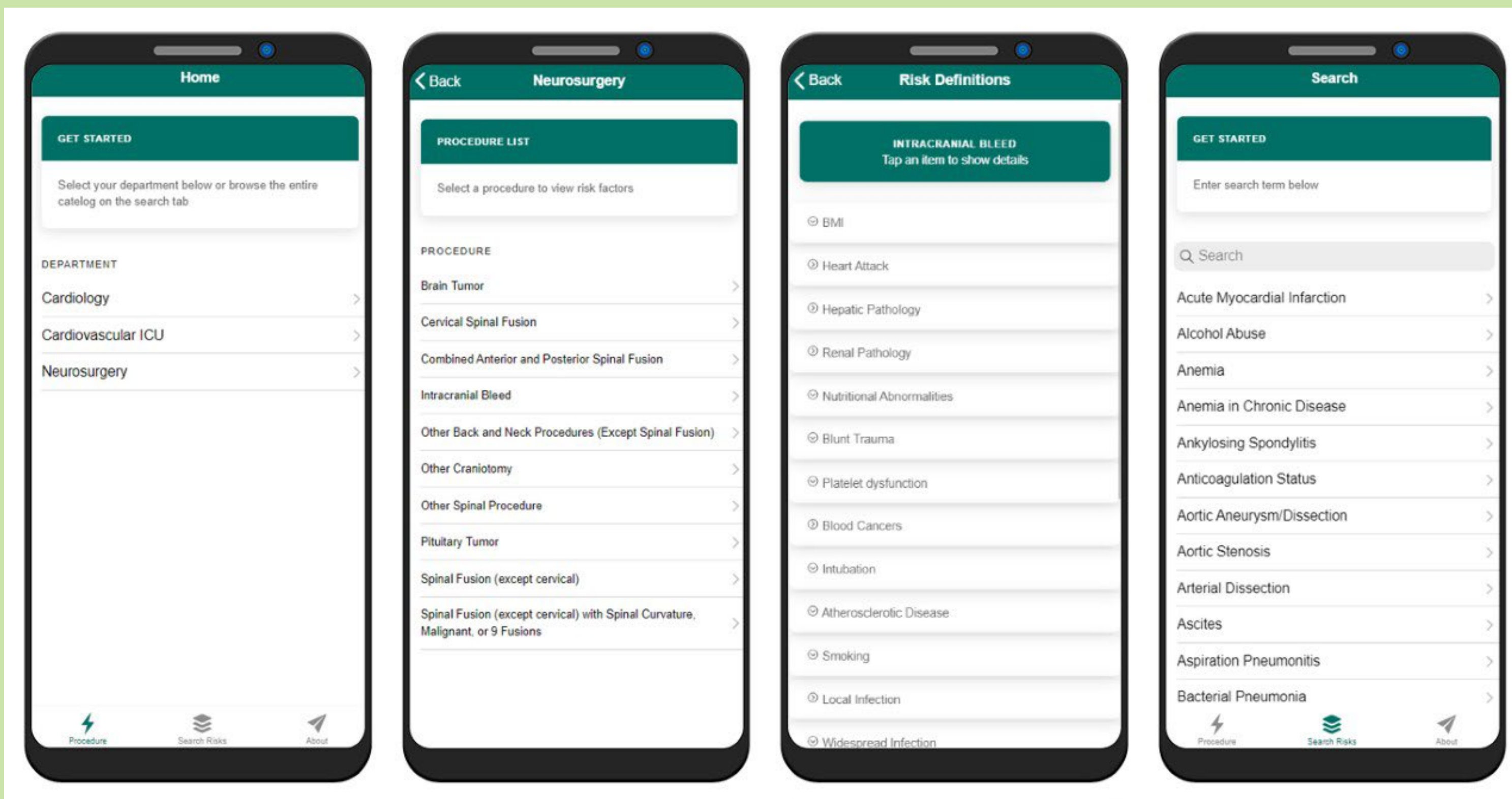   - Provider education and engagement

Interventions

1. Informational Video
2. Mobile Application

Conclusions

- It is of vital importance to utilize technological advancements and provide individualized tools and education for the improvement of clinical documentation, especially within acute departments such as the Neuro-ICU.

- It is our hope that this preliminary proof-of-concept study will inspire other initiatives in neurosurgery to improve quality metrics and patient care by utilizing similar strategies.

Figure 1. Mobile application to facilitate clinical documentation. (a) Home page, (b) department page, and (c) procedure page showing applicable variables to document. Certain variables can be expanded for further explanation, (d)