

BDMS Center of Excellence in Orthopedics

Preoperative Discussion, the Surgical Performance Improvement Project

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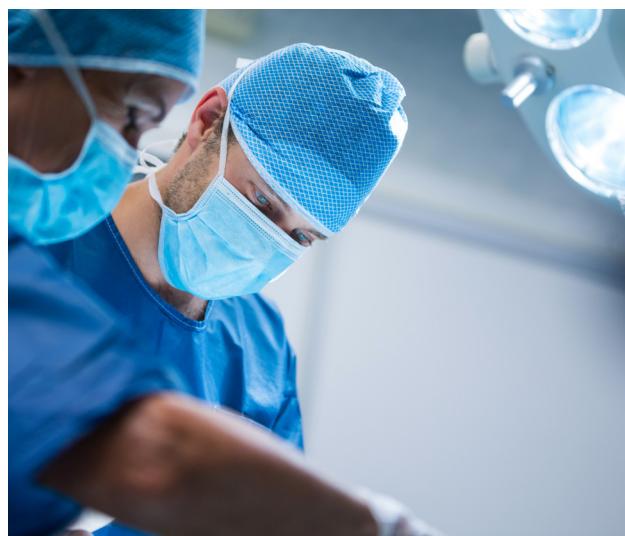
Patient safety is a critical part in achieving success in developing the Orthopedic center of excellence. As defined by World Health Organization (WHO) Regional Office for Europe, the simplest definition of patient safety is the prevention of errors and adverse effects to patients associated with health care. Bangkok Dusit Medical Services PCL (BDMS) Orthopedic Institute intends to reduce health care professional errors to create higher quality and safer orthopedic care. Therefore, we have created various quality improvement strategies such as consistently organizing educational courses, establishing a new surgical privileges system, and monitoring clinical results. One of the approaches that our skilled surgeons have been observing for the past few years is the postoperative review to monitor the surgical outcomes in fracture patients. Each hospital would send an anonymous X-ray image to BDMS for reviewing, both preoperative and postoperative films. This activity is conducted by senior expert orthopedic surgeons. They directly measure the surgical performance and provide advice if there is room for improvement in surgical techniques. The surgeons can thus learn and build up their knowledge; as a result, the surgical competence of orthopedic surgeons in the network hospitals demonstrates progress with fewer complications.

Nevertheless, the complexity of surgical cases is increasing, and there is also rapidly progressing technology that requires an advancement of surgical skills. To achieve the center of excellence's value, there is potential for continued development that can drive us to do even better. The Chief of BDMS Orthopedic Institute, Dr. Suthorn Bavoratanaavech, recommended that it would be more beneficial if the surgeon consults with surgical experts before an operation. The surgeon can mitigate preventable errors such as technical failures associated with improper surgical approaches and orthopedic implants. Therefore, we looked for an instant messaging text platform that can be used between orthopedic surgeons, peers,



and skilled surgeons. This effective communication serves as a hub of knowledge distilling and supports the surgeon in deciding the best surgical techniques and implant options appropriate for that patient. This discussion can also guide the surgeon to avoid common pitfalls and to execute the best surgical performance.

The Preoperative Discussion Project was started simply by using the Microsoft Team application as a place of communication because it has a high level of security and privacy. It allows only authorized users to access the organization's Teams platform and it protects data from unauthorized viewing. We also collaborated with surgical experts in designing the discussion form, a basic digital template the surgeon can fill in with only essential information sufficient for diagnosing and deciding proper treatment. This template was created with the Zoho Form application. It permits us to collect health data and act as a reference point to refer to if needed.



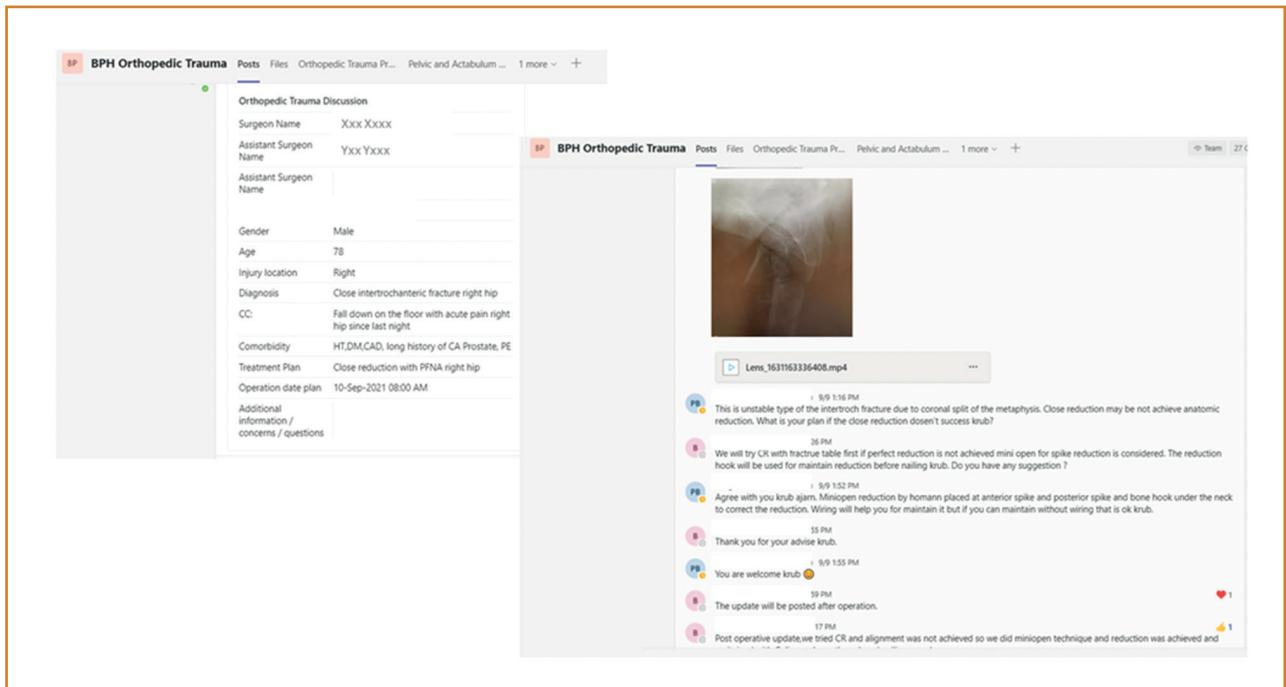


Figure: User interface Microsoft Team

Once the designing process was done, the Preoperative Discussion Project was implemented in Bangkok Hospital Headquarters first, as a pilot site, for Orthopedic Trauma and Hip and Knee Reconstruction subspecialities. Later, with collaboration with nurse coordinators and the head of the orthopedic departments in the network, it was implemented in 11 additional Orthopedic Centers of Excellence (CoE).

In the beginning, there were difficulties in implementing the project. Some surgeons avoided using the Microsoft Teams because of initial technical glitches. Eventually, with the helpful assistance of nurse coordinators, the Microsoft Team platform has been successfully employed.

BDMS Orthopedic Institute aimed to elevate this project to the next level by integrating the data with EHR and BDMS Orthopedic Registries. This method would utilize orthopedic clinical data more effectively. After reporting this project to the executives, they have authorized and granted the budget for developing our program. Now, it is in the process of collecting requirements and designing the platform and is scheduled for

a pilot phase by the end of this year. However, this project's objectives will not be achieved if surgeons and staff members find workarounds to avoid using it. The crucial part of implementing the new practice standard is to ensure that surgeons fully understand the objective of this project. Additionally, to reduce resistance by confirming that surgeons agree that this project offers higher-quality patient care. The implementation team will provide in-depth training on using the program, coordinating, and supporting the implementation effort across the network.

In conclusion, quality improvement is the process by which a primary care practice continually assesses performance, plans changes in areas where improvements are warranted, monitors the effects of those changes, and refines as needed. BDMS Orthopedic Institute is committed to improving quality of care, advancing surgical outcomes, and delivering the motivation and foundation for improving orthopedic clinical data collection for BDMS hospitals. *Our mission is to provide the best possible care to Orthopedic patients.*

References

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