

Breaking Down Silos: Engineering Team Drop-in Sessions

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I. INTRODUCTION

Lower Mainland Biomedical Engineering (LMBME) provides healthcare technology management services to 27 hospitals and additional facilities within a vast geographical area in the lower mainland region of British Columbia, Canada.

LMBME supports over 110,000 medical devices and is staffed with 250+ workers. Among these workers are 190+ site-based technologists and 7 regional clinical engineers who support all LMBME sites. Cross-functional communication and collaboration among these groups are essential to operational success.

II. METHODS

To improve communication and collaboration within LMBME, the clinical engineering team created biweekly 30-minute drop-in sessions open to all staff, including technologists, administrators, managers, and directors. These sessions allow staff to ask questions and share concerns and lessons learned with coworkers through open dialogue.

Presently, the sessions have an open agenda format and are held virtually to facilitate attendance for workers in any location. The meeting invitations include a link to a form for the anonymous submission of questions, general feedback, or improvement ideas to the engineering team.

During each session, all attendees are welcome and encouraged to participate in live discussions. Meeting notes are recorded on a digitized spreadsheet, which is shared with all staff to enable ongoing access to discussion topics in a transparent manner.

To analyze the effectiveness of the drop-in sessions and to facilitate continuous improvement, an anonymous survey was distributed to all staff after the 6th drop-in session.

III. RESULTS & DISCUSSION

Ideally, each major hospital would have at least one local clinical engineer to support their operations. However, currently, LMBME only has 7 full-time clinical engineers for 20+ sites. As such, the engineers work regionally, which creates communication and collaboration challenges between regional engineers and local technologists. For example,

local staff are not equally aware of the range of services offered by engineers, and the drop-in sessions allow engineers to clarify their scope of work.

Over the first 4 months of implementation, 75 unique staff members (~30% of LMBME workforce) attended engineering team drop-in sessions. During these sessions, staff often discuss local issues with peers from other sites, increasing awareness of problems affecting multiple sites, which can help identify regional solutions and opportunities for improvement. For example, a technologist noticed that expensive medical-grade display monitors are being used in situations where cheaper consumer-grade ones could suffice. This became an internship project for a clinical engineer to identify relevant regulations, standards, and best practices with potential for regional cost-saving opportunities.

The drop-in sessions also create efficiencies by bringing together large groups of diverse staff in a single forum, providing coworkers with an opportunity to obtain invaluable feedback regarding ongoing and future work, which is key to developing mutually beneficial solutions.

Based on qualitative survey results, the sessions are also improving engagement and collaboration between engineers and technologists, who now have an open communication forum with real-time access to each other. For example, survey respondents mentioned: "It's good to keep a direct line of communication open to the engineers, as they can be a valuable resource. It's important for us to understand what they can and cannot do for us, and this forum offers us a way to discuss what's important to frontline Biomed techs and get their input, perspective, and/or assistance." "I learn what and how other sites are dealing with issues, and I give feedback on how systems and procedures are working for frontline techs. This helps build relationships with the engineering team to allow better communication and results."

IV. CONCLUSIONS

Despite being a simplistic initiative, the engineering team drop-in sessions have had a positive impact, yielding improvements in relationship-building, collaboration, and culture across LMBME, as well as efficiency gains, alignment of tasks, and reduction of redundant work. Based on learnings from these sessions, the author believes other programs with regional teams could benefit from a similar initiative.