



# OT to ICU Handover Checklist

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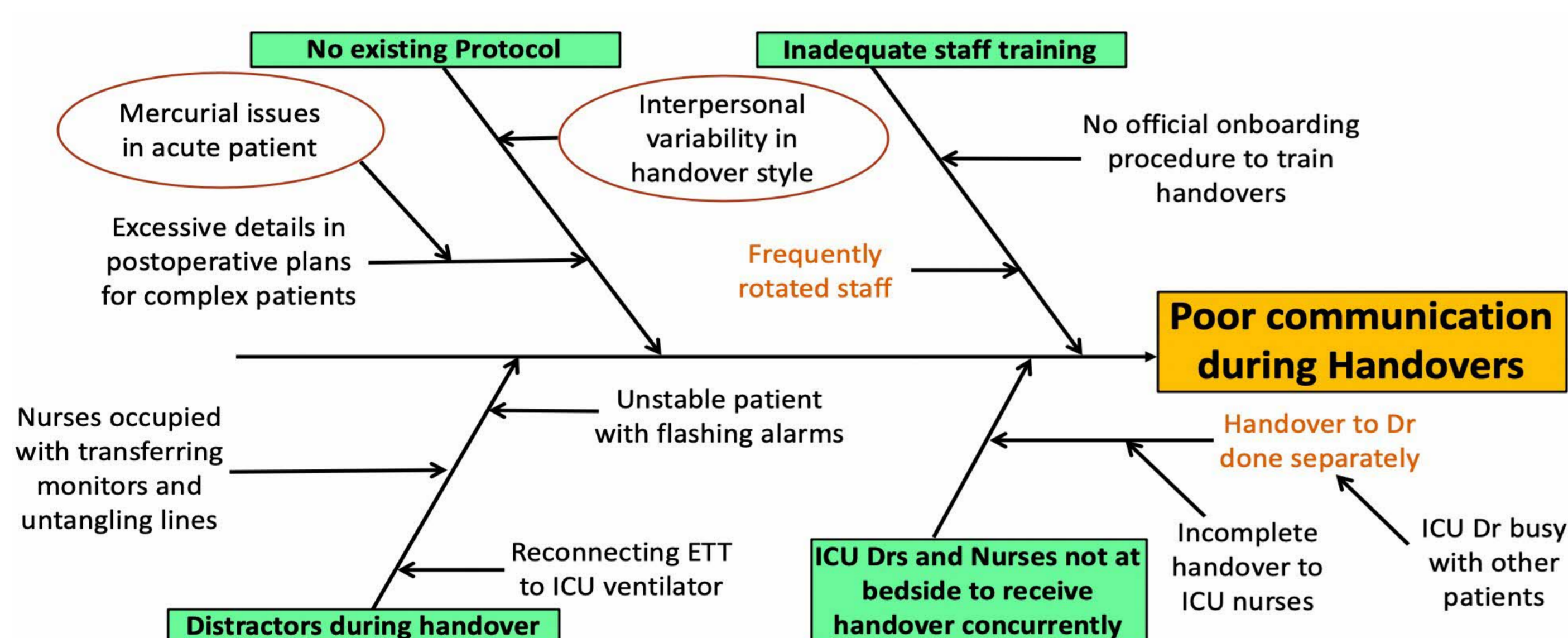
## Project Background

Postoperative transfer of care from operating theatres (OTs) to intensive care units (ICUs) is a **pivotal moment in peri-operative care** of critically ill patients. Omission of key clinical detail during handovers may result in suboptimal care and potential lapses in patient safety.

## Mission Statement

To improve communication and increase the completion rate of post-operative handover items at MICU, NICU and SICU in our institution from 45.5% to 68.3% over 2 months.

## Analysis of Problem



Analysis of factors contributing to poor communication was performed via Cause and Effect Diagram, with conclusion that “interpersonal variability” and “mercurial issues” were root causes to be addressed by the standardised checklist. This would also tackle secondary causes such as “frequently rotated staff” and “handovers to doctors done separately”, thus achieving our primary goal.

## Interventions / Initiatives

Post-operative handovers of patients who had underwent elective or emergency operations were **assessed by an independent assessor and nurse receiving the handover** in our institution’s Surgical, Medical and Neuroscience ICUs.

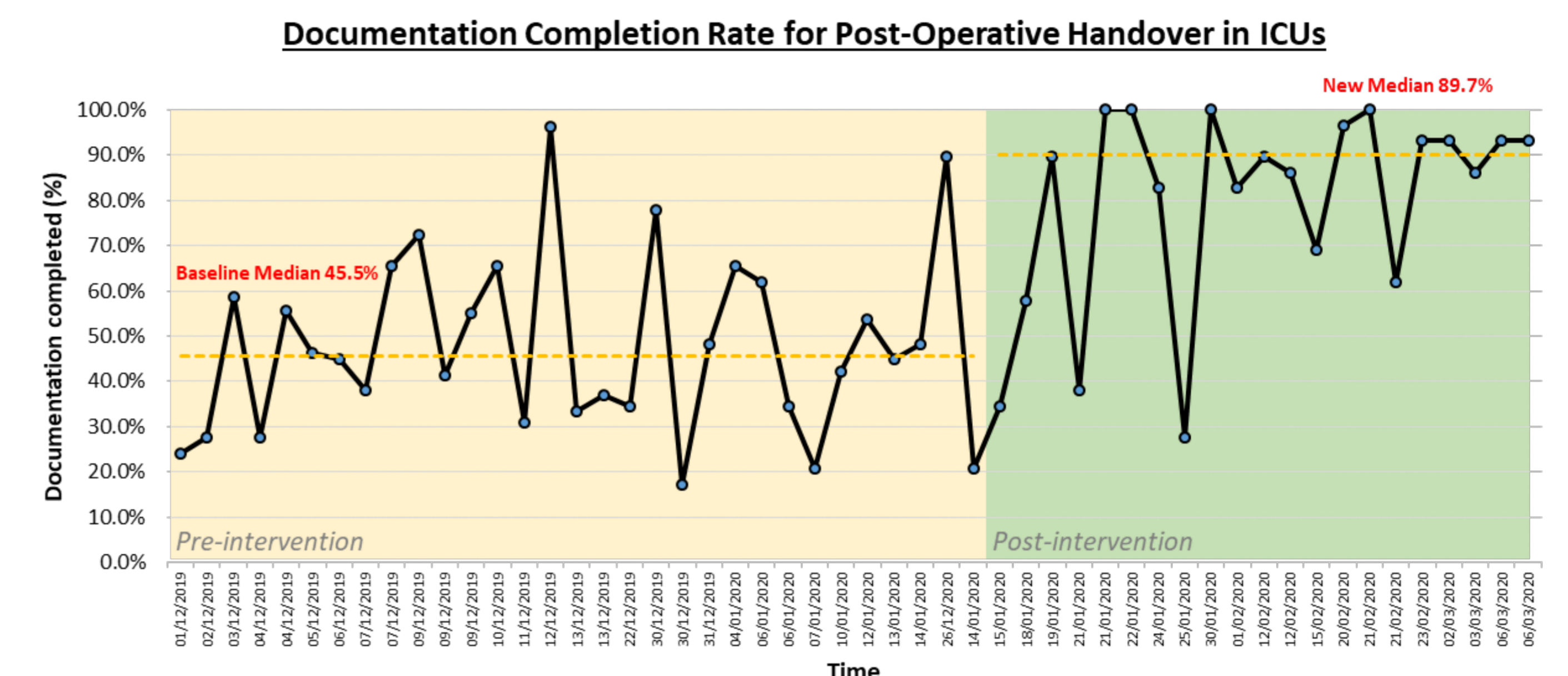
This baseline data was collected from 1st Dec 2019 to 14th Jan 2020. Our “OT to ICU Handover Checklist” (shown on right) was launched on 15th Jan 2020.

The completion rate of handover information as well as qualitative feedback, pre and post intervention, was analyzed via the checklist and evaluation form.

This study concluded on 6th March 2020, after achieving **13 consecutive data points above baseline median**, reflecting system change of statistical significance.

The form is titled 'OT to ICU Handover Checklist' and includes sections for Patient's name label, Situation, Background, Assessment (A - Airway, B - Breathing, C - Circulation, D - Drugs/Disability, E - Environment), Recommendations, and signature fields for the handover provider and receiver.

## Results and Analysis



Total of 52 handovers requiring admission to ICUs post-operatively were examined. Pre-intervention (32 cases), they achieved a median completion rate of 45.5% for key handover information. Post-intervention (20 cases) the completion rate rose to 89.7%, amounting to an improvement of 97%, surpassing our goal of 50%.

Statements with upswing post intervention	P-Values
"The information conveyed was concise and clear."	0.000522
"I have to look elsewhere for information after the handover."	0.016144
"There were opportunities to ask questions and clarify."	0.004761
"Description of the patient matched our subsequent patient clinical assessment."	0.027137
"At the end of the handover, I was aware of the postoperative plan of this patient."	0.000598
"Overall, I am satisfied with the handover in terms of content and how it was communicated."	0.002991

Analysis of the qualitative feedback statements showed positive changes which are statistically significant across the board. We also noted that there is no correlation between number of staff present and the quality of the handover.

## Conclusion / Future Plans

Our project’s success can be attributed to our team’s belief in the merits of effective inter-professional communication during handovers. During the course of this project, we were encouraged by the **strong mandate from our ICU nursing colleagues**, who were aware of the deficiencies of the incumbent modus operandi and appreciated the need for change to ensure patient safety.

This is **essential in the current COVID-19 climate** where there is redeployment of medical staff to various ICUs, making good clinical handovers even more vital to safety and good clinical outcomes.

We have **integrated this checklist successfully into department standard of practice (SOP)**. It is available on the Intranet, for better accessibility and reference. Department education and promotional campaigns are underway to increase awareness and ensure compliance. Support from our fellow colleagues will also be paramount, to ensure the continued success of our project: attain better communication and improve ICU handovers for our post-operative patients.

*"Effective teamwork begins and ends with good communication"*