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## **Abstract**

**Introduction:** Nursing shift handover is a vital part of the clinical care where communication of relevant patient information takes place accurately and precisely, to ensure continuity of care and promote patient safety (WHO, 2007). Poor communication and lack of structured format has been identified as a contributing factor in adverse incidents where patient care is put at risk.

This study analysed the nursing shift handover, wherein the handover was carried out verbally with support and assistance of note taking, and to contribute to the development and implementation of a computerised structured format for nursing shift handover using the ISBAR<sup>3</sup> communication tool for handover to improve communication. (In accordance with the recent recommendations of: National Clinical Guidelines (2014) for communication (clinical handover) in Maternity Hospital Services in Ireland.)

**Methods:** Ethnographic Research design was used. A gynaecology specific ISBAR<sup>3</sup> audit tool was developed and used for observation. An ISBAR<sup>3</sup> computerised nursing handover template specific to gynaecology was developed, incorporating recommendation of national clinical guidelines for maternity services in 2014, with the existing good practises and highlighted areas of improvement. The staff feedback was procured and gathered to assess their perception, which showed the template was indeed appropriate and fit for purpose.

**Results:** The gynaecology ward had 15 staff and handover takes place at 2 shifts at 07:30 and 21:10. 20 observations each for pre and post-implementations were carried out. A significant improvement in overall handover practice was observed during post-intervention period. The mentioning of following data subsets, *Category* [9 (45%) vs. 17 (85%)  $p < 0.05$ ], *Time of admission* [12 (60%) vs. 19 (95%)  $p < 0.05$ ], *Social issues* [11 (55%) vs. 19 (95%)  $p < 0.05$ ], *Anaesthesia* [6 (30%) vs. 16 (80%)  $p < 0.05$ ], *Estimated Blood Loss* [11 (55%) vs. 19 (95%)  $p < 0.05$ ], *Risks {safety pause}* [7 (35%) vs. 17 (85%)  $p < 0.05$ ] all demonstrated significant improvements upon use of computerised ISBAR<sup>3</sup> template. The time taken for handover was reduced by 4 minutes/handover. As every minute is valuable for patient care, 4 minutes for 5 staff in each shift amounts to 20 minutes in total in a shift or 40 minutes/day, which is equivalent to 20 hours/month and 240 hours/year of nursing time. Use of a computerised structured format replaced the traditional way of handover to a systematic, precise, accurate, relevant mode of updated communication in a very short period of time.

**Conclusion:** As this was the first study with gynaecology speciality audit tool and the ISBAR<sup>3</sup> handover format, this study contributed a solid base for further research, audits, and its potential practice developments in other hospitals. Successful implementation of the ISBAR<sup>3</sup> handover tool with e-technology in gynaecology supports the roll out of this mode of communication to extend and furnish to other nursing and maternity services in the hospital.

Implementation of the ISBAR<sup>3</sup> handover tool enhanced communication, reduced the risks in patient safety and considerably reduced the ever-valuable time taken for handover.