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The Impact of a Ward-Based Pharmacy Technician Service



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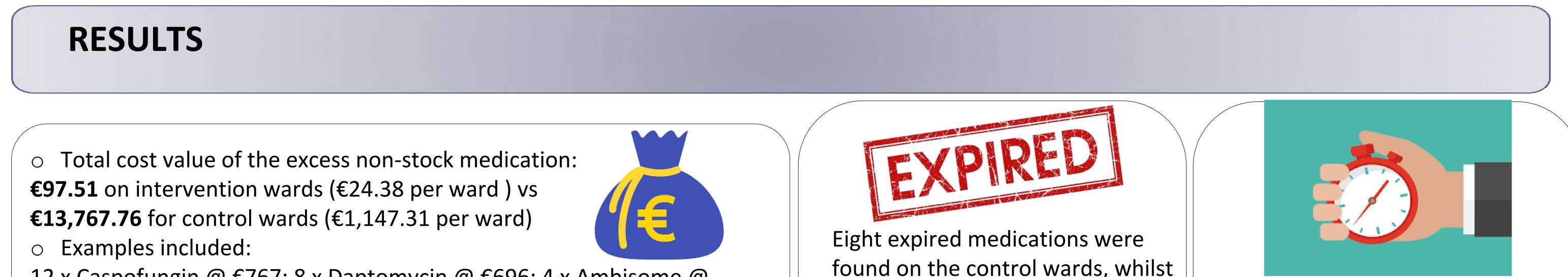
BACKGROUND

- Pharmacy technicians have been employed in hospital settings for many years, but only recently has their role been reviewed for potential expansion. Ο Hospitals across Australia, the UK and many other countries have implemented a ward-based pharmacy technician service (WBPTS),^{1,2} but this is yet to become common practice in Ireland.
- Limited research exists on the expanding clinical role of pharmacy technicians in Ireland. The only published study in the area was carried out in Tallaght Ο hospital, Dublin, and results showed that the service offered the potential to alleviate nurse workload and improve the pharmacist clinical service ³.

The aim of this study is to build on the limited existing research on the WBPTS in Ireland and to determine if the expanded role of the ward-based Ο pharmacy technician role could have a positive impact on medicine management systems and staff workload within the wards of an Irish hospital.

METHODS

- This study was carried out over 8 weeks (June September 2018) in an Irish hospital. All analyses were performed using Microsoft Excel and SPSS [®] Ο
- Sixteen wards were studied; four 'intervention wards' which have WBPTS in situ and 12 'control wards' which currently do not. Ο
- The medication management systems were inspected by the research team for the presence of excess non-stock medication and expired Ο medication. Analysis was performed to ascertain the value of the excess non-stock medication found on each ward.
- Nurses were observed by the research team to calculate the time taken to complete drug rounds. Ο
- Patient drug charts were analysed to calculate the duration to pharmacist review of high-risk medications. Ο
- Nursing staff were surveyed on their opinions of the service. Ο



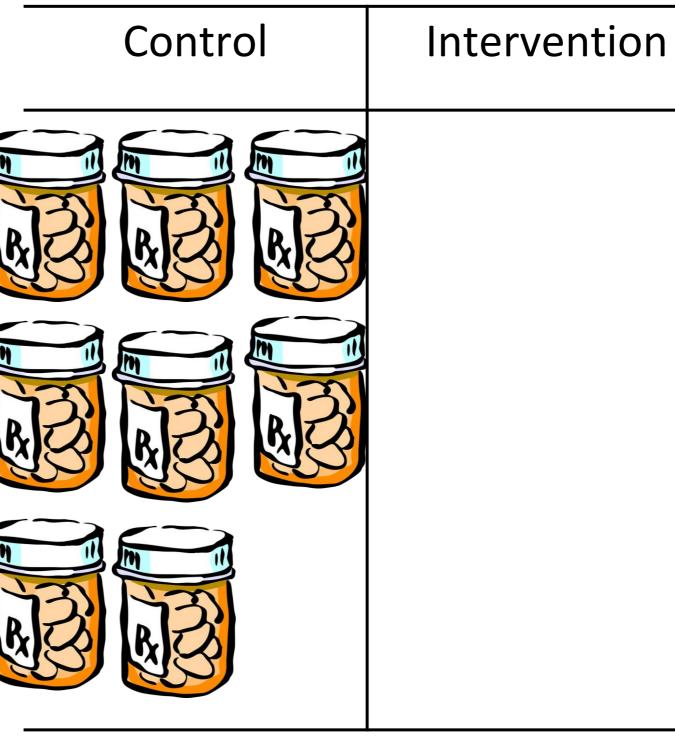
12 x Caspofungin @ €767; 8 x Daptomycin @ €696; 4 x Ambisome @ €539; 10 x Actilyse Cathflo @ €518.



- Patient drug charts on both sets of wards were Ο screened for high-risk medications.
- The date of initiation of each medication and the date of review by the pharmacist was noted.
- The median time taken for pharmacist review of high-risk medications Ο was shorter on intervention wards (0.67 days) vs control wards (4.2 days). The difference in time was found to be statistically significant when a Ο Mann-Whitney U test was performed on the data (p value = 0.016).

• The results of the survey showed that 100% of respondents agreed that the WBPTS should continue.

found on the control wards, whilst none were found on intervention wards.



• Average nursing time in minutes to complete drug rounds was recorded.





- Control ward
- ward • This equates to a reduction of
 - 28%.
- This correlates with the results obtained from the questionnaire distributed to nurses; **91%** of participants agreed that the WBPTS reduced the time required to complete drug rounds.

CONCLUSIONS

• This study has demonstrated that the expanded role of the ward-based pharmacy technician has had a positive impact in several ways;

- > A reduction in the cost of non-stock medications present on the ward along with a reduction in expired stock present.
- > Time taken to complete drug rounds was less on the intervention wards compared to control wards, thus freeing up time for nurses to engage in other patient activities.
- Further studies should consider the full economic costing of the WBPTS.
- More widespread investment in the WBPTS has the potential to reduce healthcare expenditure due to excess medication, increase nursing time
 - spent on direct care of patients, and reduce the potential for patient harm from high-risk medication.

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REFERENCES: Available upon request