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Impact of drug and therapeutic committee intervention on rationalisation of albumin use in cancer patients admitted to surgery wards of a tertiary care teaching hospital

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Objectives

Although albumin has been extensively used in clinical practice, cost-effective and evidence-based indications remains limited. Considering the high cost and limited availability of albumin, its use must be restricted to indications strongly supported by solid scientific evidence. Albumin ranked tenth in terms of quantity and first regarding cost in the surgery wards of our institution. It was anticipated that with implementation of a National Health Reform Plan (NHRP), consumption of albumin would follow a rising pattern as the result of decreasing patients' out-of-pocket costs. Purpose This study aimed to evaluate the efficacy of Drug and Therapeutic Committee (DTC) intervention on the rationalization of albumin use in surgery wards of the Cancer Institute.

Study Design

This study was conducted in three 2 month phases. The first phase was before implementation of the NHRP, the second phase was after implementation of NHRP and the third phase was after DTC intervention. Participants were cancer patients admitted to surgery wards of the Cancer Institute who had a prescription for albumin. The first and second phases were conducted retrospectively. Data extraction was performed by a hospital pharmacist. During the third phase, a local guideline for albumin use was prepared by the DTC and it was mandatory for physicians to fill the albumin request form for each prescription. Guideline adherence was evaluated by a pharmacist under supervision of a clinical pharmacist. If needed, the physician was also contacted to consider modification of the prescription. Appropriateness of prescriptions in terms of indication, dose and duration based on local guidelines were compared among groups.

Results

Although hospital bed-days of care remained consistent during the phases, albumin was prescribed for 40, 45 and eight patients during the first, second and third phases, respectively. This shows about 80% reduction in drug requests in the last phase. The mean duration/dose of albumin in inappropriate indications reduced significantly from 11.3±8.2 days/24.7±21.2 vials in the second phase to 2.6±1.7 days/5.6±3.5 vials in the third phase, respectively (p=0.001 and p=0.003).

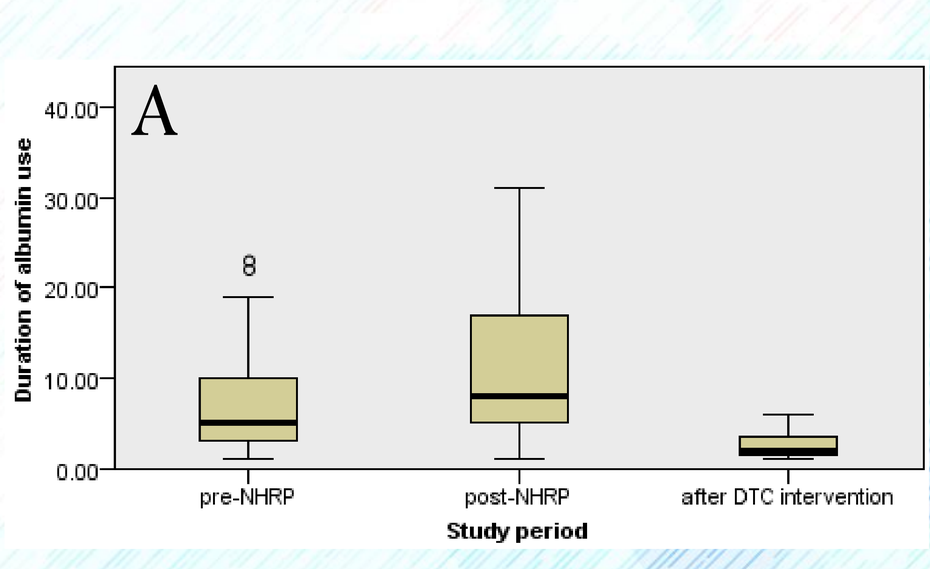

Figure 1-A. Comparison of duration of albumin use in inappropriate indications in three phases of the study. The mean duration of albumin use was significantly lower in "after DTC intervention" phase compared with "post-NHRP" phase.
Figure 1-B. Comparison of number of used albumin vials in inappropriate indications in three phases of the study. The mean number of albumin vials was significantly lower in "after DTC intervention" phase compared with "post-NHRP" phase.

Conclusion

Interactive collaboration through guideline implementation seems effective in rationalising the use of high-cost medications such as albumin.

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