

CPC-114 PREVALENCE AND MANAGEMENT OF DRUG-RELATED PROBLEMS IN AN INTENSIVE CARE UNIT

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Background Patients admitted to intensive care units (ICUs) are at higher risk than other patients of having problems, injuries and adverse drug reactions (ADRs) associated with their drug treatment.

Purpose To identify and categorise drug-related problems (DRPs) in an intensive care unit, using a standardised tool modified for use in critically ill patients.

Materials and Methods The Integrated Medicines Management model (IMM) was used as a standardised tool for both medicines reconciliation and medication reviews. All patients admitted to the Intensive Care Unit (ICU) at Levanger Hospital, Norway, during a 12-week period in 2011 were asked to participate in the study. DRPs identified by the pharmacist were discussed with the physicians in charge and changes in drug treatment were recorded.

Results A total of 23 patients were included in the study and 94 medication reviews were conducted (1–25 reviews per patient). One or more DRPs were identified for 16 of the patients. Overall 150 DRPs were identified by the pharmacist. Out of these 41% were related to discrepancies with the medicines list, 18% were non-optimal doses, 8% clinically relevant interactions and 8% non-optimal treatment. Input from the pharmacist was upheld by the physician and the medicine changed as suggested for 18% of the DRPs related to the medicines reconciliation and discrepancies with the medicines list and for 76% for DRPs identified in the medication review.

Conclusions DRPs were frequently identified in this cohort of ICU patients by the use of a standardised assessment tool. The majority of DRPs identified in the medication reviews were accepted by the physician. This indicates that the inclusion of a clinical pharmacist in the ICU multidisciplinary team may contribute to the quality of both acute and prophylactic drug treatment in critically ill patients.

No conflict of interest.

CPC-115 PREVENTION AND TREATMENT OF INTRALUMINAL CATHETER THROMBOSIS IN CHILDREN HOSPITALISED IN A PAEDIATRIC INTENSIVE CARE UNIT

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Background Placing central venous access devices (CVADs) is essential in the management of critically ill children. Used for the administration of fluids, medicines, total parenteral nutrition or blood products they may, however, also cause thrombotic complications.

Purpose To develop and implement a protocol for the prevention and treatment of catheter-related intraluminal thrombosis in a Paediatric Intensive Care Unit (PICU).

Materials and Methods A computerised search was carried out on MEDLINE using the medical subject heading ‘central venous catheter’ associated with ‘occlusion’, ‘thrombosis’, ‘critically ill

patients’ and ‘fibrinolytic’. The protocol development process was guided by the goal of weighing evidence regarding effectiveness, safety and cost. Algorithms were developed in order to reduce the complexity of the protocol, aid comprehension, and facilitate successful implementation.

Results With the information gathered, a protocol was drawn up and those recommendations that best suit our environment were included. They were agreed upon by a broad panel of professionals working in the PICU and the Pharmacy Department. Facts to highlight:

Prevention of intraluminal catheter thrombosis:

Prevention of intraluminal CVAD thrombosis with continuous heparin infusion: To keep intravenous catheters patent for drug administration, haemodynamic monitoring and blood sampling.

Prevention of intraluminal CVAD thrombosis with heparin lock solutions: To maintain catheters not being used for the administration of continuous infusion fluids.

Prevention of intraluminal CVAD thrombosis with fibrinolytic lock solutions: If prior intraluminal thrombosis has occurred. The fibrinolytic agent used should be the same as that used for thrombosis resolution.

Treatment of intraluminal CVAD thrombosis

Normal saline: Flush with 5–10 mL. If after 3 attempts the problem is not solved, administration of fibrinolytic therapy is recommended.

Urokinase at a concentration of 5,000 U/mL (first line).

Alteplase at a concentration of 1 mg/mL (second line).

Conclusions Due to the variety of options available for the pharmacotherapeutic management of intraluminal catheter thrombosis, one measure to improve the quality of the treatment and reduce the variability in prescriptions could be to implement a protocol as described.

No conflict of interest.

CPC-116 PREVENTION OF OPIOID-INDUCED CONSTIPATION: RESULTS FROM A CAMPAIGN IN 4 HOSPITALS IN DENMARK

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Background The Clinical Pharmacy Service is part of the Capital Region Pharmacy. The Clinical Pharmacy Service handles acquisition of medicines for the hospital wards and is responsible for the safe and rational use of medicines. The department employs teams consisting of a pharmacist and a pharmaconomist [roughly translating as an expert in pharmaceuticals] with responsibility for each ward. The educational background of the pharmaconomist is 3 years’ tertiary education which includes an internship in a community pharmacy or hospital pharmacy. The pharmaconomist handles the daily acquisition of medicines and contact with the wards and the pharmacist is responsible for quality assurance. A campaign was launched to improve the quality of the service on the wards and to educate the pharmaconomists.

Purpose To improve awareness of opioid-induced constipation and treatment with laxatives.

Materials and Methods The pharmaconomist attended teaching sessions arranged by the pharmacists. The pharmacists developed an intervention handout to the wards containing information about why and how they should prevent opioid-induced constipation. For 8 weeks the pharmaconomists screened the medicines prescribed on the wards for opioids and checked whether a laxative was prescribed. If no laxative was prescribed they filled in an intervention handout with patient information and proposed solutions and