5PSQ-139 ORTHOPAEDIC IMPLANT RESUPPLY CHAIN: BETTER, FASTER, STRONGER!

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Background The 58 trauma compositions, including surgical instruments and sterilisable orthopaedic implants, are often sent incomplete to the central sterilisation (CS) concerning the implants. Sterilising incomplete compositions or keeping them at the CS until they are completed, leads to patient risks such as postponing or delaying surgery.
Purpose This study aimed at quantifying the incomplete compositions, the costs and suggestion of solutions with a multidisciplinary commission (MC).
Material and methods During 3 months, the sterilisation technicians (ST) counted how many times the compositions were sent incomplete. The costs were based on the surgical instrument number per composition, the checking complexity and the employee, water and electricity costs. Surgeon, nurse, pharmacist and STs reviewed the results and the existing implant resupply chain.
Results Eighty-four per cent of the orthopaedic compositions were sent incomplete. Either the nurse had forgotten to send the implants to the CS on time for 42% of them or the order had not yet been delivered. The delivery delay differed from 3 to 10 days. One-third of the compositions stayed more than a day at the CS before being completed. Sterilising incomplete composition cost € 1156 for 3 months. The checking by ST could last 1 hour 30 min to make sure all the implants were present. The MC concluded to switch from sterilisable implants to sterile implants at an equivalent cost, and to substitute the biomedical service for the pharmacy to make order.
Conclusion With the pharmacy, the delay delivery shortened to 48 hour. The company provided the sterile devices freely, which were paid for when implanted. Misusing once-only use implants was avoided thanks to sterilisable patterns helping select the right implants. The removal of the incomplete composition sterilisation costs offset the sterile implant packaging elimination costs. The composition simplification saves time for the checking by the STs and makes the composition available quicker for the operating room (OR). Patient safety is improved thanks to a permanent and computerised implant traceability which also automatically makes an order once done. However, the switch implies a reorganisation in the OR's storage facility.

This new optimised implant resupply chain ensures safety for the OR and the patients, and cost effectiveness for the hospital.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-140 THE COMMUNICATION PROCESS BETWEEN PHARMACY AND OTHER DEPARTMENTS AND WARDS IN AN ACUTE HOSPITAL

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Background The pharmacy department communicates information by emailing memos to clinical staff. Paper copies are also distributed to clinical areas. Previous research highlighted poor awareness of information distributed via these channels.
Purpose The aim of the project was to examine current communication methods, explore alternative methods and to improve the effectiveness of communication between the pharmacy and other departments and wards.
Material and methods A pharmacist-led multi-disciplinary team, including pharmacists, pharmaceutical technicians, clinical nurse managers (CNMs), a non-consultant hospital doctor (NCHD) and a dietician, carried out a Quality Improvement project.

Voice of the Customer (VOC) – Critical to Quality (CTQ) and CTQ-Measure Quality Improvement tools were used to develop an 18-question survey. Question categories included:

- Current process questions e.g. 'Where do you currently look for pharmacy information?'.
- Knowledge of information disseminated in recent memos.
- Barriers to receiving pharmacy information.
- Preferred means of receiving pharmacy information.

Sixty staff (18 NCHDs, 20 nurses, 14 CNMs, eight dieticians) were asked to complete the survey: the response rate was 100%. Cause and Effect analysis was carried out to identify factors leading to communication problems. Based on the findings, alternative communication techniques were proposed and piloted over a 2 week period.
Results Significant variation in how memos were displayed on wards was evident.

Seventy per cent of nurses surveyed checked their emails once-weekly or less frequently, indicating that this is not an effective method of communication.

Twenty-five per cent of nurses surveyed and 17% of NCHDs surveyed were aware of the contents of a recent pharmacy memo.

Respondents in all categories indicated a preference for verbal communication of pharmacy information.
Pilot results Memos were displayed on wards in a display folder known as the 'Pharmacy Communication Hub'. Awareness of recent memos increased from 25% to 69% of nurses surveyed.

Verbal communication of urgent memos by pharmacists to NCHDs was piloted. Memo awareness among NCHDs increased from 17% to 87.5% of NCHDs surveyed.
Conclusion This project found that existing pharmacy communication techniques were not effective. Alternative communication methods were piloted and demonstrated improved effectiveness. Implementation of these methods will ensure that up-to-date medication-related information is both highlighted to, and is easily accessible by, clinical staff.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Project Team. Nurse Practice Development.

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5PSQ-141 POLYPHARMACY AND TRANSCATHETER AORTIC VALVE IMPLANTATION

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Background Over the past decade, transcatheter aortic valve implantation (TAVI) has emerged as a novel and less invasive alternative to traditional surgical aortic valve replacement (SAVR) for the management of severe aortic stenosis (AS) in higher-risk elderly patients.
Purpose Our aim was to evaluate the frequency of polypharmacy (treatment with more than four medications per person) and to analyse the ATC class of medications prescribed in a fragile population.
Material and methods We analysed the data of patients whose medical procedures included TAVI or SAVR, between January 2016 and October 2017.

We identified a total of 903 patients who underwent TAVI (n=228) or SAVR (n=675), whose clinical characteristics were assessed by calculating the Charlson comorbidity index (CCI).
Results Patients in the TAVI group were more likely to be older (p<0.0001), female (p<0.01) and to have a higher CCI (p=0.05).

No significant difference in polypharmacy was observed between the two groups at discharge, after 6 and 9 months from the hospitalisation. In particular, the patients in polypharmacy, immediately after discharge, were 29% in the TAVI group and 35% in the SAVR group (p=0.07). After 6 months from discharge, the percentage of patients in polypharmacy had increased to over 80% in both groups and this data was confirmed after 9 months. In both groups, the most prescribed drugs at discharge were the antithrombotic agents (50.1% TAVI, 40.3% SAVR; p=0.005), followed by the drugs for peptic ulcer and gastroesophageal reflux disease (29.4% TAVI, 33.6% SAVR; p=0.24), high-ceiling diuretics (19.3% TAVI, 33.6% SAVR; p<0.0001) and beta-blocking agents (20.2% TAVI, 28.1% SAVR; p=0.018). The same evaluations on the prescribed medications were also made after 6 and 9 months.
Conclusion This first analysis found that polypharmacy was common in over one-third of our participants at discharge (both TAVI and SAVR group).

We found no association between polypharmacy and the type of AS treatment, but we observed some difference in the drug class between the two groups.

The next steps will be to investigate the presence of inappropriate drug combinations and to implement an inter-professional approach at discharge for improving polypharmacy issues.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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5PSQ-142 RISK FACTORS FOR HYPONATRAEMIA IN ELDERLY PATIENTS, BEYOND PHARMACOLOGICAL ADVERSE EFFECTS

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Background Hyponatraemia is the most frequent electrolyte disorder among **elderly** patients (9.4%–15.0% of prevalence). It is rarely attributed to pharmacological causes despite being one of the most common drug-induced electrolyte abnormalities. Although some studies have shown an increase in mortality, others have failed to confirm this association.
Purpose To estimate the prevalence of hyponatraemia in geriatric patients.

To determine which chronic drugs or alternative risk factors are associated with hyponatraemia and whether hyponatraemia is related to re-admission or mortality.
Material and methods We included ≥80 years' old patients consecutively admitted from March to July 2018 in an Acute Geriatric Unit (81 beds) of a University Hospital. Data collected: age, sex, pre-admission Barthel and Pfeiffer tests, number and family of chronic drugs, laboratory test, comorbidities, length of stay (LOS), mortality, re-admission and mortality at 30 days post-discharge.
Results

Abstract 5PSQ-142 Table 1

	Hyponatraemia (Na<135 mEq/L) n=29 (18.86%)	Normonatraemia (Na=135–145 mEq/L) n=143 (83.14%)	P-value
Age	90.1 (86.4–93.4)	88.4 (85.5–90.3)	0.1287*
Nonagenarians	15 (52.72%)	40 (27.97%)	0.0164¥
Females	20 (68.97%)	83 (58.04%)	0.3056¥
Barthel	50 (20–70)	65 (45–85)	0.0103*
Pfeiffer	4 (2–6)	3 (1–5)	0.1777*
Polypharmacy	10.0 (8–14)	11.0 (8–14)	0.9706*
Loop diuretics	17 (58.62%)	92 (64.34%)	0.6729¥
Thiazides	10 (34.48%)	12 (8.39%)	0.0006¥
Potassium-sparing	3 (10.34%)	6 (4.20%)	0.1781¥
Selective serotonin reuptake inhibitors	7 (24.14%)	28 (19.58%)	0.6147¥
Antipsychotics	5 (17.24%)	32 (22.38%)	0.6280¥
Na^+(mEq/L)	132 (131–133)	139 (138–141)	0.0000*
K^+ (mEq/L)	4.8 (4.25–5.05)	4.5 (4.1–4.8)	0.0667*
Glomerular filtration rate (GFR) (ml/min)	27.7 (19.6–52.9)	43.7 (28.9–61.7)	0.0213*
Heart failure	12 (41.38%)	79 (55.24%)	0.2213¥
Atrial fibrillation	11 (37.93%)	59 (41.26%)	0.8370¥
Diabetes mellitus	19 (65.52%)	59 (41.26%)	0.0236¥
Renal failure (GFR<30 ml/min)	15 (51.72%)	34 (23.94%)	0.0057¥
LOS (days)	13 (9–17)	10 (7–16)	0.1318*
Mortality	4 (13.79%)	19 (13.29%)	1.0000¥
30 day re-admission	7 (28.00%)	28 (22.58%)	0.6070¥
30 day mortality	2 (8.00%)	7 (5.65%)	0.6470¥

* -Mann–Whitney *U* -and Wilcoxon. Median data (P25–P75).
¥Fisher's exact test

Conclusion The studied population displays hyponatraemia prevalence slightly above those of published values (see table 1). Hyponatraemia is associated with the use of thiazides and other factors such as age (>90 years), functional capacity, renal function and diabetes mellitus. Instead, re-admission and mortality rates remain unaltered.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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