

Background and importance Critical care pharmacists have demonstrated their contribution to the management of drug therapy and impact on patient and medication safety. Traditionally, the functions of the clinical pharmacist in the intensive care unit (ICU) of our hospital were based on pharmaceutical interventions (PIs) concerning parenteral nutrition (PN). Currently, a computerised physician order entry (CPOE) system has been implemented. This system reduces the incidence of medication errors and allows pharmaceutical validation.

Aim and objectives To analyse the evolution in the number of PIs before and after implementation of the CPOE; to describe the type of PIs carried out by clinical pharmacists after CPOE implementation; and to assess the degree of acceptance by ICU physicians.

Material and methods A 2 month descriptive and prospective study was conducted between 1 January and 28 February 2020 in an 18 bed ICU of a tertiary teaching hospital, 3 months after CPOE implementation. Every type of PI and degree of acceptance were recorded. Total PIs recorded were compared with those recorded in the same period of time before implementation of the CPOE (between 1 July and 31 August 2020).

Results During the current study period, 227 patients were admitted to the ICU, and 366 PIs were recorded. PIs increased by 173% compared with the previous study period before the implementation of CPOE (232 patients, 134 PIs). Regarding the number of PIs during the current study period, 25.4% were related to PN prescriptions, 8.4% were related to antimicrobial stewardship programme, 5.7% were related to optimising drug therapy, 3.3% were related to route of administration, 4.6% were related to incorrect drug based on the indication, 2.7% were related to therapeutic drug monitoring and 46.4% were related to fluid therapy. 91% of PIs were accepted by the ICU staff.

Conclusion and relevance CPOE in the ICU promoted the pharmacist's participation in improving the safety of medical prescriptions by increasing the number of accepted PIs. The high number of interventions related to fluid therapy was highlighted. We consider it necessary to start corrective measures regarding this aspect, such as the preparation of prescription protocols, training talks, etc.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-398 USE OF INTRAVENOUS IRON IN HEART FAILURE OCTOGENARIANS AND NONAGENARIANS WITH IRON DEFICIENCY

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Background and importance Anaemia is an important comorbidity in heart failure (HF), and iron deficiency (ID) is the commonest contributing factor. Intravenous iron therapy improves quality of life although data in elderly patients are scarce.

Abstract 4CPS-398 Table 1

	No intravenous iron (n=16 (42.1%))	Intravenous iron (n=22 (57.9%))	p value
Age (years)	87.8 (86.8–89.4)	86.2 (84.0–89.3)	0.261*
Sex (women) (n (%))	8 (50.0)	17 (77.3)	0.080†
LOS (days)	11 (8–15)	19 (14–24)	0.017*
Barthel Index	77.5 (50–90)	62.5 (50–85)	0.313*
Anaemia (n (%))	9 (56.3)	16 (72.7)	0.290†
At admission			
Oral iron (n (%))	0 (0.0)	6 (27.3)	0.030‡
Cockcroft–Gault (mL/min)	29.4 (19.3–38.0)	27.4 (19.7–34.0)	0.301*
Haemoglobin (g/L)	124 (112.5–139.5)	110.5 (107–122)	0.089*
Iron (µg/dL)	35 (24.5–51.5)	38 (28–43)	0.953*
Ferritin (ng/mL)	119.7 (75.6–190.2)	105.7 (40.4–122.7)	0.178*
Transferrin (mg/dL)	215 (187–235.5)	238 (215–270)	0.044*
TSAT (%)	12.2 (9.5–18.3)	12.15 (8.4–13.6)	0.249*
At discharge			
Oral iron (n (%))	0/12 (0.0)	6/18 (33.3)	0.057‡
Cockcroft–Gault	35.14 (28.1–48.9)	28.93 (22.9–34.9)	0.188*
Haemoglobin	114 (112–137)	114.5 (113.5–127.5)	0.812*
Iron	33.5 (22–47)	70.0 (66.5–94.5)	0.033*
Ferritin	293.8 (194.4–312.6)	444.5 (313.7–747.0)	0.053*
Transferrin	200 (151–239)	206.5 (199.5–247.0)	0.420*
TSAT	16.8 (9.6–17)	21 (18.3–36.3)	0.062*
Mortality (n (%))	4 (25.0)	4 (18.2)	0.698‡
At 6 months			
Readmission (n (%))	4/12 (33.3)	7/18 (38.9)	1.000‡
Global mortality (n (%))	6/16 (37.5)	10/22 (45.5)	0.624†

*Median (P25–P75), Mann–Whitney U test–Wilcoxon test; † χ^2 test; ‡Fisher's exact test.

Aim and objectives To describe the use of iron in patients with HF and ID and to analyse differences between receiving or not intravenous iron.

Material and methods A retrospective observational study was conducted in a university hospital. From January to March 2019, the acute geriatric unit admitted octogenarian and nonagenarian patients for unbalanced HF and ID. Registered variables were: sociodemographics, length of stay (LOS), Barthel Index, oral iron supplements, use of intravenous iron during admission, analytical parameters at admission and post-discharge, mortality and readmission at 6 months. Definitions: anaemia (haemoglobin: men <13.0 g/dL; women <12.0); ID (ferritin <100 µg/L or 100–299 with transferrin saturation (TSAT) <20%).

Results Among 89 unbalanced HF patients admitted, 38 were diagnosed with ID (table 1).

Conclusion and relevance In our octogenarian and nonagenarian cohorts, 58% of patients received intravenous iron, higher than in similar studies. According to the guidelines, no oral iron was prescribed, neither during admission nor at discharge. Intravenous iron increased LOS, without affecting mortality. However, ID parameters improved.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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