The implementation of Patient Blood Management principles and early intravenous iron therapy in the Emergency Department have proved to be effective tools to optimise resources both in terms of units transfused and costs” Beverina et al (2019).

Abstract:

BACKGROUND: Moderate to severe iron deficiency anaemia is a common finding in patients admitted to the Emergency Department (ED). According to Patient Blood Management principles, intravenous iron should be the therapy of choice instead of blood transfusion for selected cases affected by chronic iron deficiency anaemia. However, this option is only rarely taken into account by physicians in the ED. As a result, in many circumstances, treatment of iron deficiency anaemia in the ED can differ from that of the Anaemia Clinic. With the aim of reducing inappropriate transfusions, and to implement intravenous iron usage, we shared a specific protocol with the ED.

MATERIAL AND METHODS: We reviewed the medical records of all subjects admitted to the ED (n=267, Post-protocol group) with hemoglobin ≤9.0 g/dL and mean corpuscular volume <80 fL in a 13-month period, except if the massive transfusion protocol was activated, and results were compared with an equivalent Pre-protocol historical cohort (n=226). RESULTS: In comparison with the Pre-protocol series, the number of patients transfused did not change, but the appropriateness in terms of transfusion and red blood cell volume transfused improved sharply (87.0 vs 13.3%; p<0.001) with a significant increase in intravenous iron
administration (50.2 vs 4.4% of cases; p<0.001). As a positive consequence, both the time spent in the ED by patients who were then directly discharged and costs per subject treated dropped by 37.9% and 59.0%, respectively. Treatment with infusion only in comparison with transfusion only led to a statistically significant Relative Risk reduction in transfusion on the ward and post-discharge transfusion of 55.6% and 44.4%, respectively. DISCUSSION: The implementation of Patient Blood Management principles and early intravenous iron therapy in the Emergency Department have proved to be effective tools to optimise resources both in terms of units transfused and costs.

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