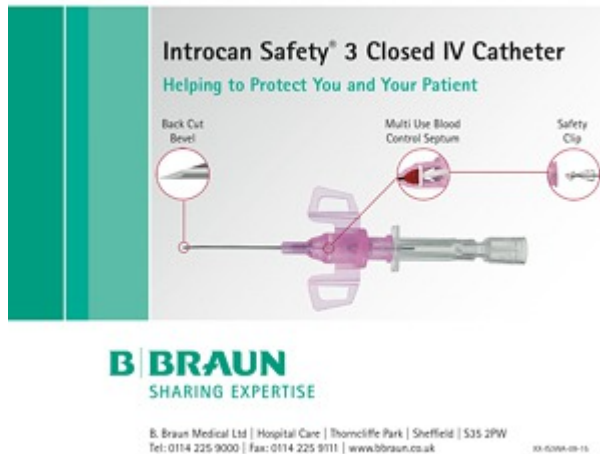


"Administering PLTs in a shorter timeframe may prove beneficial by possibly raising platelet counts to a higher level faster, and allowing patients to be disconnected from IV pumps sooner" Steck et al (2020).



Abstract:

BACKGROUND: Hematology-oncology patients often require blood and blood product transfusions, including platelets (PLTs), to maintain stability. Administering PLTs in a shorter timeframe may prove beneficial by possibly raising platelet counts to a higher level faster, and allowing patients to be disconnected from IV pumps sooner. **OBJECTIVE:** To evaluate the optimal (safe and effective) transfusion time by comparing standard administration of PLTs over 2-4 h to the investigational administration of PLTs over 30-45 min in the pediatric hematology-oncology inpatient population. **METHODOLOGY:** A pilot trial was conducted using a convenience sample of hematology-oncology children. Children prescribed a PLT transfusion while admitted to an inpatient unit were eligible. If randomized to the intervention group, the nurse administered the PLTs over 30-45 min. If randomized to the standard group, the nurse administered the PLTs over 2-4 h. Post transfusion PLT count was drawn 30 min after completion. The child was monitored closely for adverse reactions. **RESULTS:** Eleven participants were enrolled in the study and 20 PLT infusions administered. No adverse events were noted. There was not a significant difference in changes in PLT counts by group (post minus pre), $p = 0.082$. There was not a significant difference in post infusion PLT counts, $p = 0.727$. There was a significant difference in the rate of change in PLT counts by groups, $p = 0.003$. **NURSING IMPLICATIONS:** This pilot study provides preliminary evidence that PLTs may be safely and effectively administered over 30-45 min in pediatric hematology-oncology

patients. With quicker PLT administration, patients can be disconnected from IV pumps sooner.

Decreasing CLABSI incidence associated with decreasing MRSA bacteremia

Instituting Vincristine minibag administration process

Safe administration of biologics in rheumatoid arthritis

Reference:

Steck, S., Miller-Davis, E., Conaway, M., Quatrara, B. and Letzkus, L. (2020) Picking up the pace: Decreasing platelet administration safely and effectively. *Journal of Pediatric Nursing*. 52, p.1-4. doi: 10.1016/j.pedn.2020.01.014. .

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