How to Implement Patient Blood Management Bundles

Guidance on how to implement patient blood management (PBM) in a hospital is provided in an article just published in Transfusion Medicine Reviews.

Corresponding author Prof. Dr. Patrick Meybohm (pictured), from the Department of Anaesthesiology, Intensive Care Medicine and Pain Therapy, University Hospital Frankfurt, Frankfurt am Main, Germany and colleagues from Switzerland, the USA and Australia told ICU Management & Practice in an email that the article's expert authors recommend that each hospital starts with the most feasible and doable items.

"We believe that the higher the number of measures that can be implemented the more successful the PBM project," said Meybohm. But some core items should be considered: education of surgeons and nurses, stakeholder management including the hospital board of directors, anaemia management and multimodal blood conservation strategies, he added.

The group of experts describes patient blood management (PBM) as “a proactive, patient-centred, and multidisciplinary approach to manage anaemia, optimise haemostasis, minimise iatrogenic blood loss, and harness tolerance to anaemia.”

Meybohm et al. recommend using proven change management principles to implement simple, cost-effective measures to enable hospitals to reduce transfusions.

Their article provides six bundles of PBM components that include 107 different PBM measures. These are intended as a working template which can be used in a stepwise programme to implement practices that are feasible for a particular hospital and its local conditions.

See Also: Blood-saving Surgery Drug Cuts Costs

PBM should be implemented by an institutionally empowered multidisciplinary team - lack of interdisciplinary commitment is recognised as one of the barriers to implementing PBM, they write.

The blocks of measures are arranged in accordance with the guiding principles of PBM and also provide two overarching blocks for project management and performance measurement.

- **Block 1: PBM Project Management**
The authors recommend involvement of the key stakeholders and provide suggestions for marketing and dissemination, education of staff and patients and local standardised operating procedures and protocols. Regarding the appointment of PBM coordinator (suggested as a 50% protected time role), Meybohm explained that the role needed to address both managerial and clinical aspects, including project management and education, but also additional work load in patient care (e.g., anaemia management).

- **Block 2: First strategy - manage patient’s anaemia**

The recommendations cover preoperative management of anaemia (surgical patients), optimisation of cardiovascular and pulmonary function to improve tolerance of anaemia and management of anaemia in hospitalised patients and/or after surgery.

- **Block 3: Optimise coagulopathy**

The checklists cover preoperative management of coagulopathy and haemostasis management in hospitalised patients.

- **Block 4: Third Strategy—Interdisciplinary Blood Conservation Modalities**

These include reduction of diagnostic-associated and surgery-related blood loss.

- **Block 5: Fourth Strategy—Optimal Blood Use With Patient-Centered Decision Making**

- **Block 6: PBM-Related Metrics, Patient's Outcome, Benchmarking**

By using the checklists provided, hospitals can measure the number of implemented measures in the 6 blocks and the extent of implementation, ranging from none/rarely to good. The total points provide a semiquantitative PBM programme level.

“The institution's initial success should drive further motivation and activities in the field of PBM,” the group of experts writes.

Meybohm said that they plan to follow-up the progress of hospitals that implement PBM bundles.

Source: see Reference for article details; interview
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