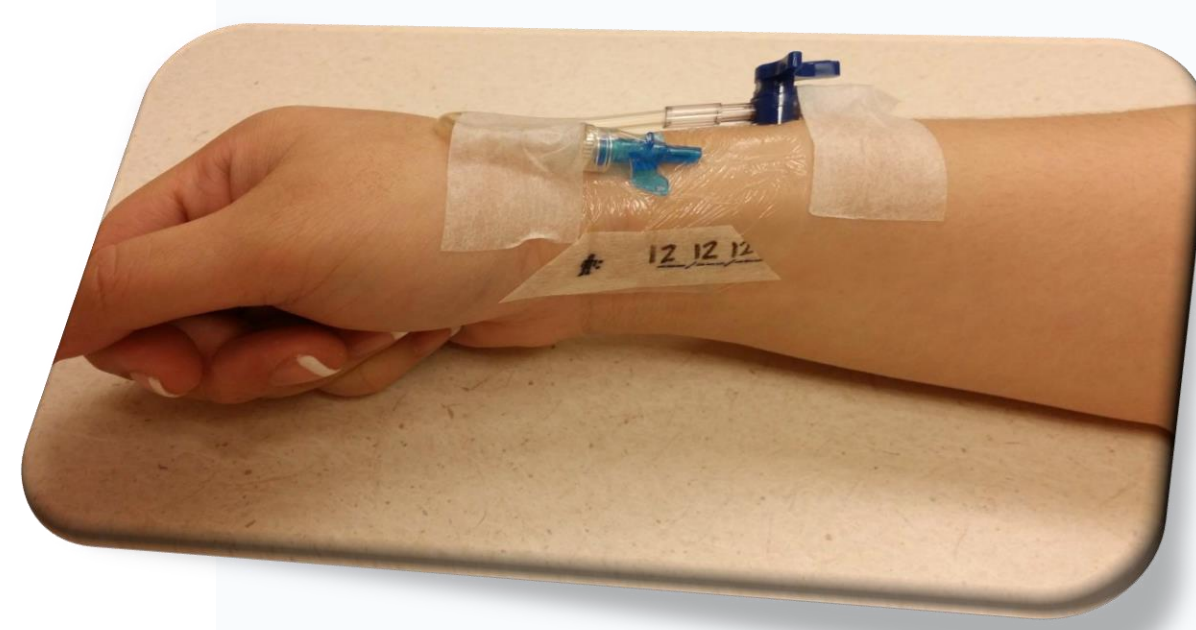




Singapore Healthcare Management 2019

Phlebitis: Care and Prevention for Patient with Intravenous Cannula in Ward 46



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Background of the problem

Ward 46 is a 104 bedded medical ward under the Department of Gastroenterology, Endocrinology, Rheumatology and Internal Medicine. In 2015, there were an increase of phlebitis reported in Ward 46.

Phlebitis is a condition in which a vein becomes inflamed which causes pain and swelling. It is usually caused by local trauma to a vein, most often caused by an intravenous catheter (IV) placed in a vein, and the vein becomes irritated. Phlebitis increases hospitalization stay as patient needs further treatment and additional treatment of antibiotics.

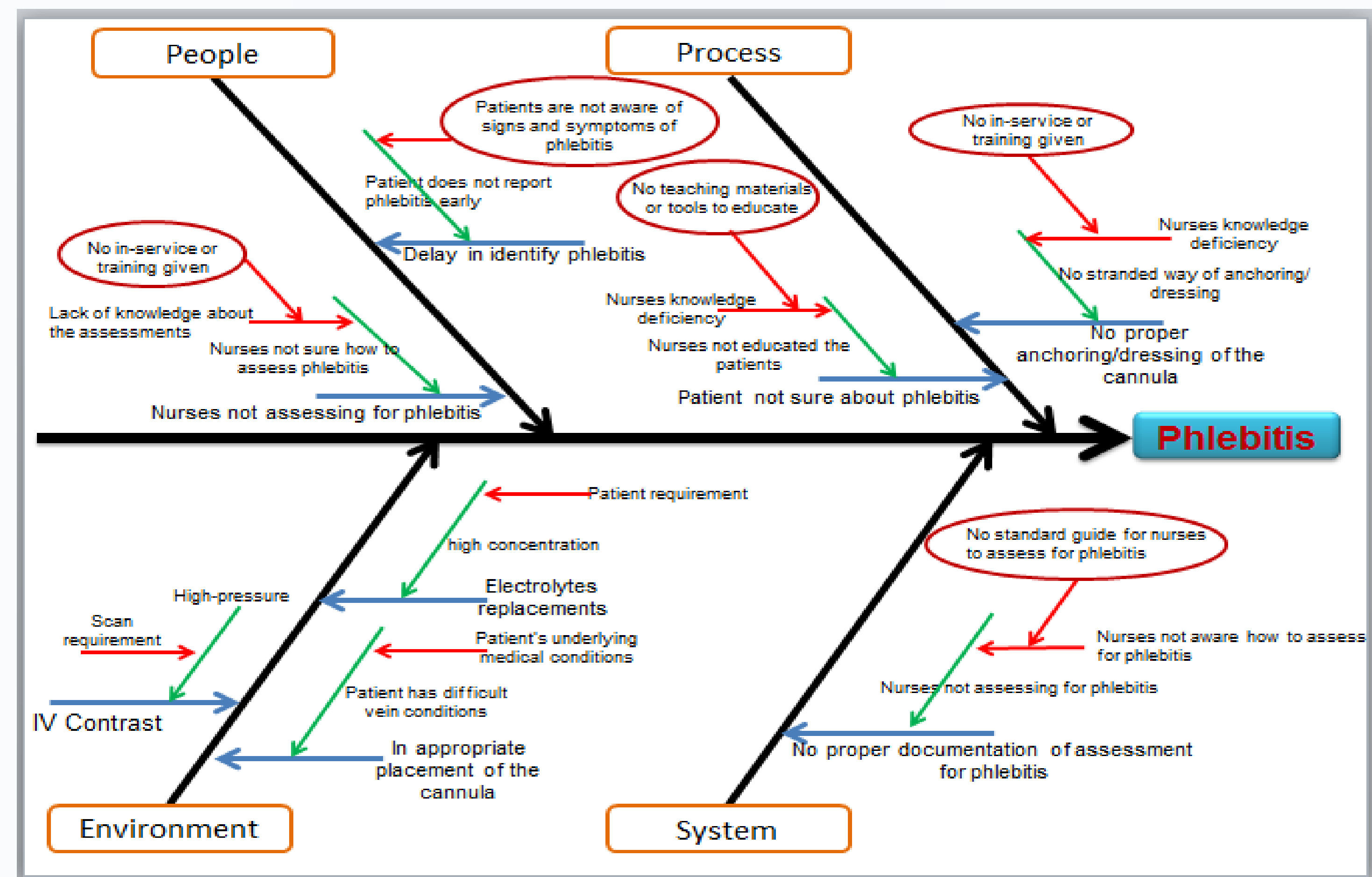
Phlebitis can result in irreversible consequences such as debridement or amputation which is a serious reportable event reported to the Ministry of Health. Therefore preventing phlebitis is a management directive focusing on zero harm to patients. We must continually strengthen our nursing care, processes and protocols, to constantly take a critical look at what could be done to improve patient safety

Mission Statement

To eliminate incidence of phlebitis for patients with I/V cannula in Ward 46 within 12 months

Analysis of problem

The team used the cause and effect diagram to identify root causes

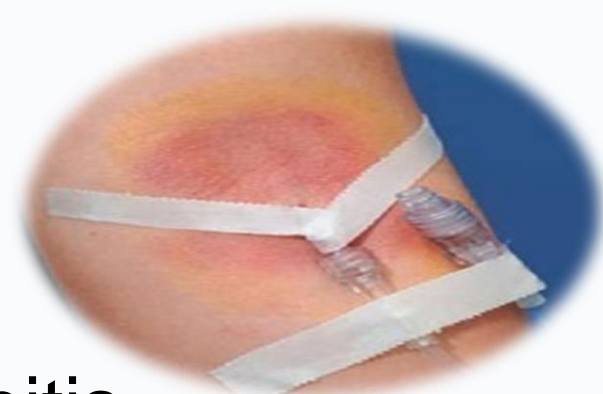


Cause & Effect Analysis

The final root causes identified were validated against the incident reports raised for phlebitis.

The final root causes were:

1. No standard guide for nurses to assess phlebitis
2. No training or in-services for management of phlebitis
3. Patients are not aware of signs and symptoms of phlebitis



Solutions

The team implemented the following initiatives:

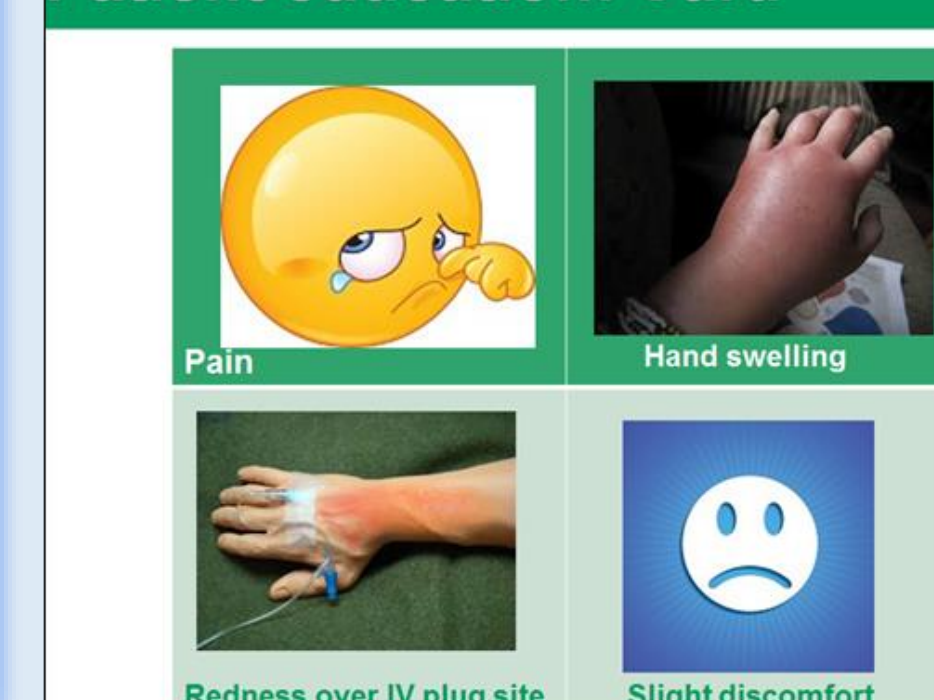
PDSA 1 – (17th July 2017)

Education was given to Registered Nurses in the ward on the assessment and management of phlebitis. Later it was extended to the EN/SENs. Survey done with the staffs – EN/SEN/SN/SSN after the education given. Feedback from the ground was to include visual aids and to include other ranks of nurses in the training

PDSA 2 - (24th July 2017)

Education was extended to all nurses in the ward. Patient education card was implemented for patients to understand and visualize the signs and symptoms of phlebitis. Visual Infusion Phlebitis (VIP) Score was implemented as an assessment tool and standardize management to phlebitis

Patient education: Card

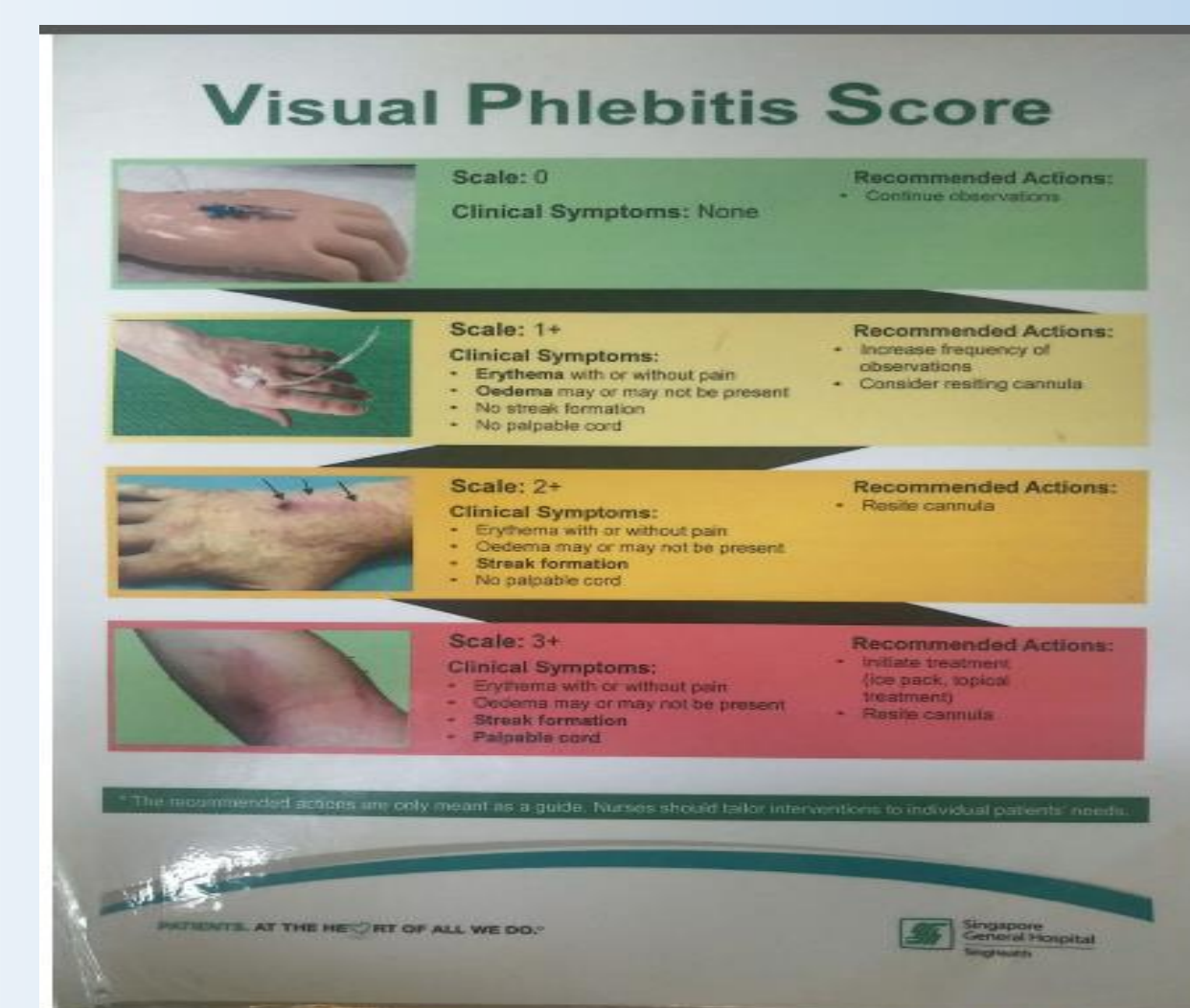


PDSA 3 (24th July 2017 improved VIP on 7th Aug 17)

Created a guide on the VIP score so that nurses can refer easily. After feedback by the nurses, the VIP guide was improved

Visual Infusion Phlebitis Score	0
IV site appears healthy	No signs of phlebitis OBSERVE CANNULA
One of the following is evident: • Slight pain at IV site • Redness near IV site	Possible first sign of phlebitis OBSERVE CANNULA
Two of the following are evident: • Pain • Erythema • Swelling	Early stage of phlebitis RESITE THE CANNULA
All of the following signs are evident: • Pain along the path of the cannula • Erythema • Induration	Medium stage of phlebitis RESITE THE CANNULA CONSIDER TREATMENT
All of the following signs evident and extensive: • Pain along the path of the cannula • Erythema • Induration • Palpable venous cord	Advanced stage of phlebitis or start of thrombophlebitis RESITE THE CANNULA CONSIDER TREATMENT
All of the following signs are evident and extensive: • Pain along the path of the cannula • Erythema • Induration • Palpable venous cord • Pyrexia	Advanced stage of thrombophlebitis INITIATE TREATMENT RESITE THE CANNULA

Initial VIP chart

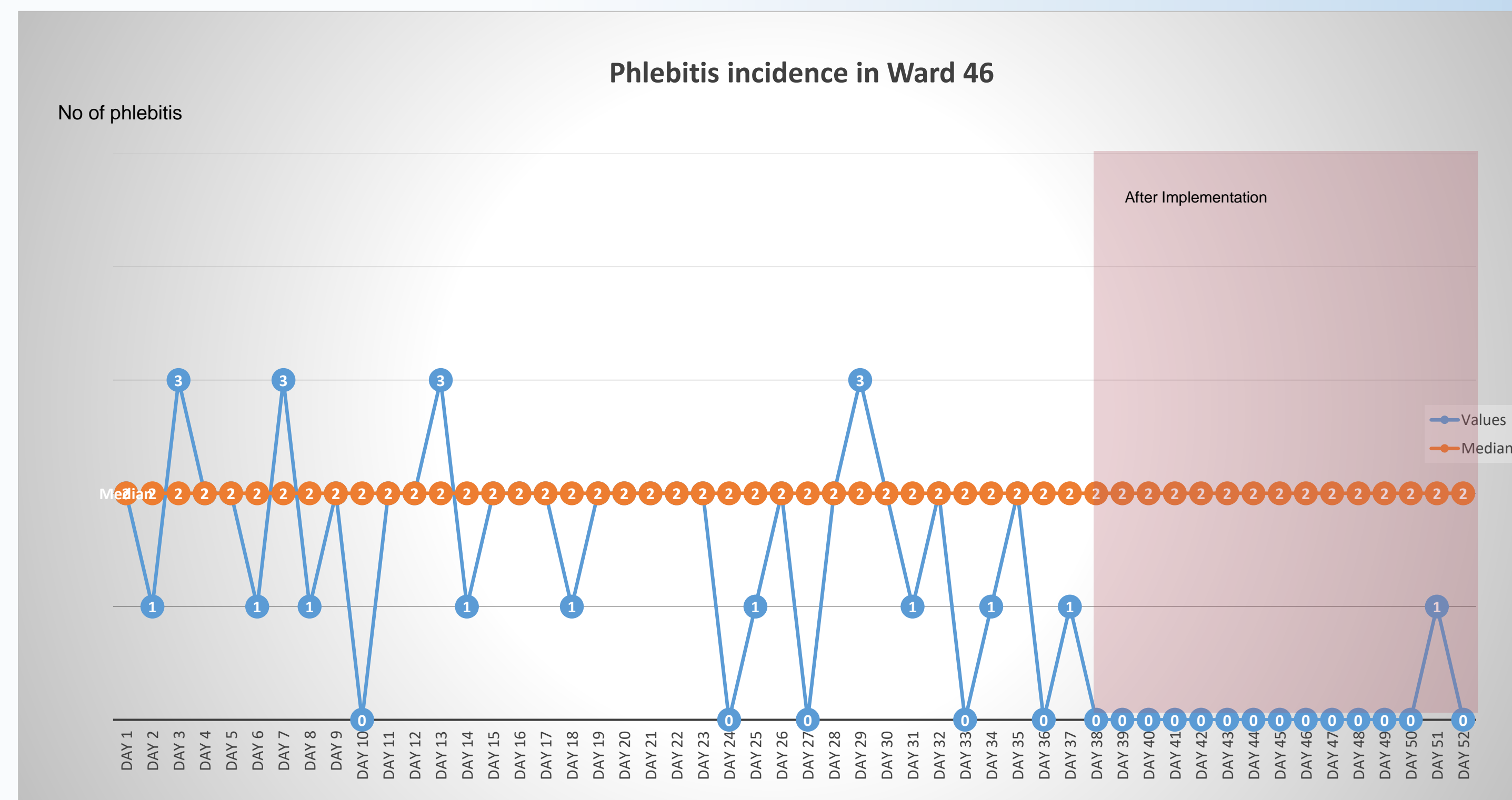


Improved VIP chart

Results

Results showed that we have achieved zero incident of phlebitis since started of PDSA 3 from 7th Aug 2017. There was one phlebitis reported from a patient that was transferred from another ward.

Feedback from nurses that now they have a better understanding on reporting the phlebitis and knows what action to be taken according to the VIP score chart. Patient feedback that they are aware to inform nurses about the signs of phlebitis.



Sustainability Plans

The initiatives and results were shared with the nurses to ensure compliance. The team also conducted random audits and advised the nurses accordingly. The initiatives will be spread hospital wide with the support from Nursing Division. The VIP score will be incorporated into Sunrise Clinical Manager (SCM) as part of the daily assessment and handover. Training and education will be conducted to ensure all nurses are aware of the standardize management for phlebitis.