



# Singapore Healthcare Management 2018

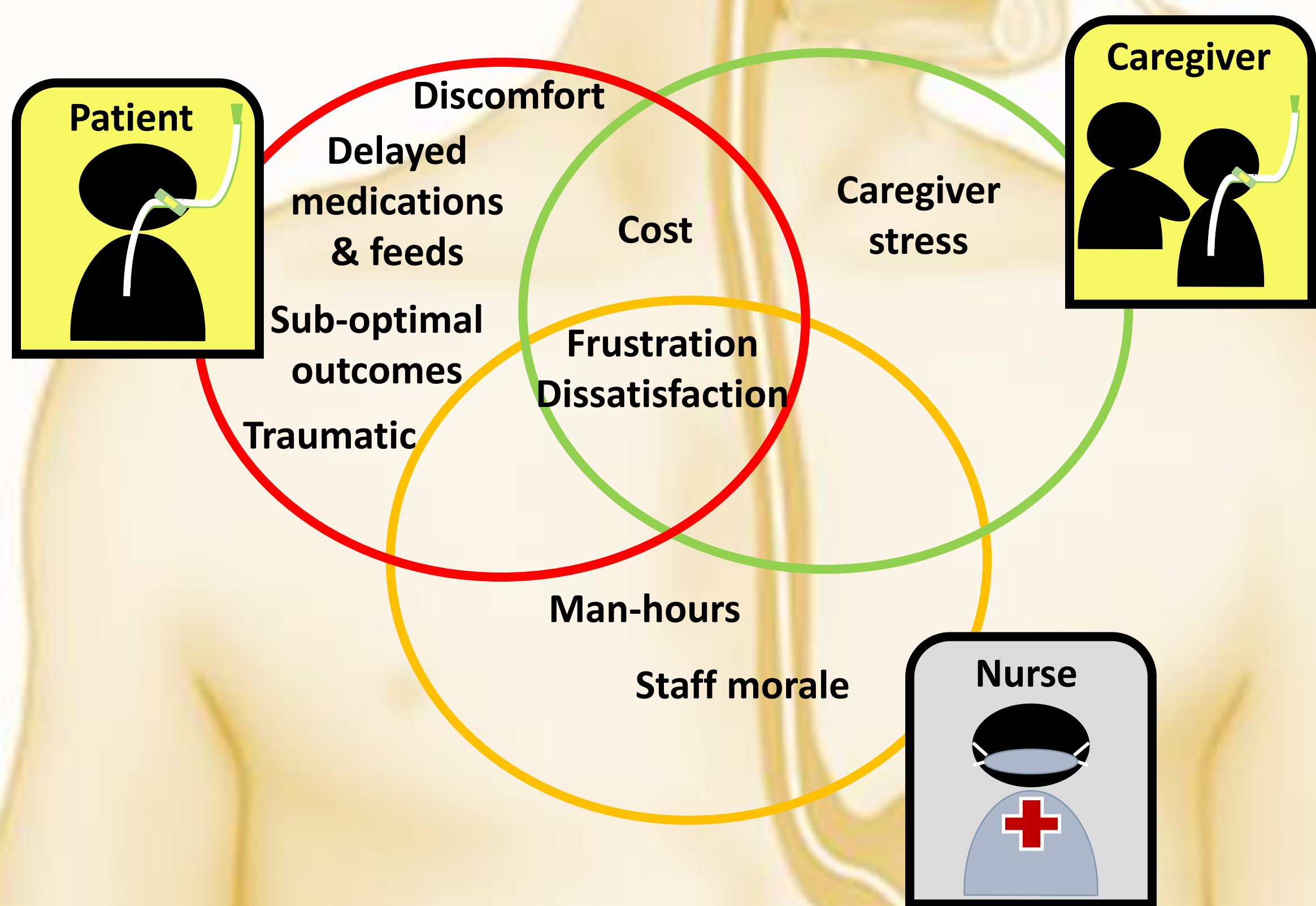
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## Project Background

Nasogastric tubes (NGT) are commonly inserted for the purpose of enteral feeding in patients with swallowing difficulty, secondary to neurological conditions. Enteral feeding refers to the delivery of nutritionally complete feeds directly into the stomach, jejunum or duodenum.

A majority of the NGT patients are at risk of self-dislodgement of NGT, since most are the elderly, often with altered mental status. Frequent self-dislodgement of NGT calls for repeated insertions of NGT.

### Effects of frequent NGT dislodgement



## Mission Statement

**"To achieve zero NGT dislodgement in patients on enteral feeding within six months"**

Stomach

## Solutions

### Solution I: NGT securement device

A securement device that contours better to the shape of nose than conventional surgical tapes, improving securement of NGT. It was implemented for six weeks in four wards: 63C, 73, 74 and 52B.



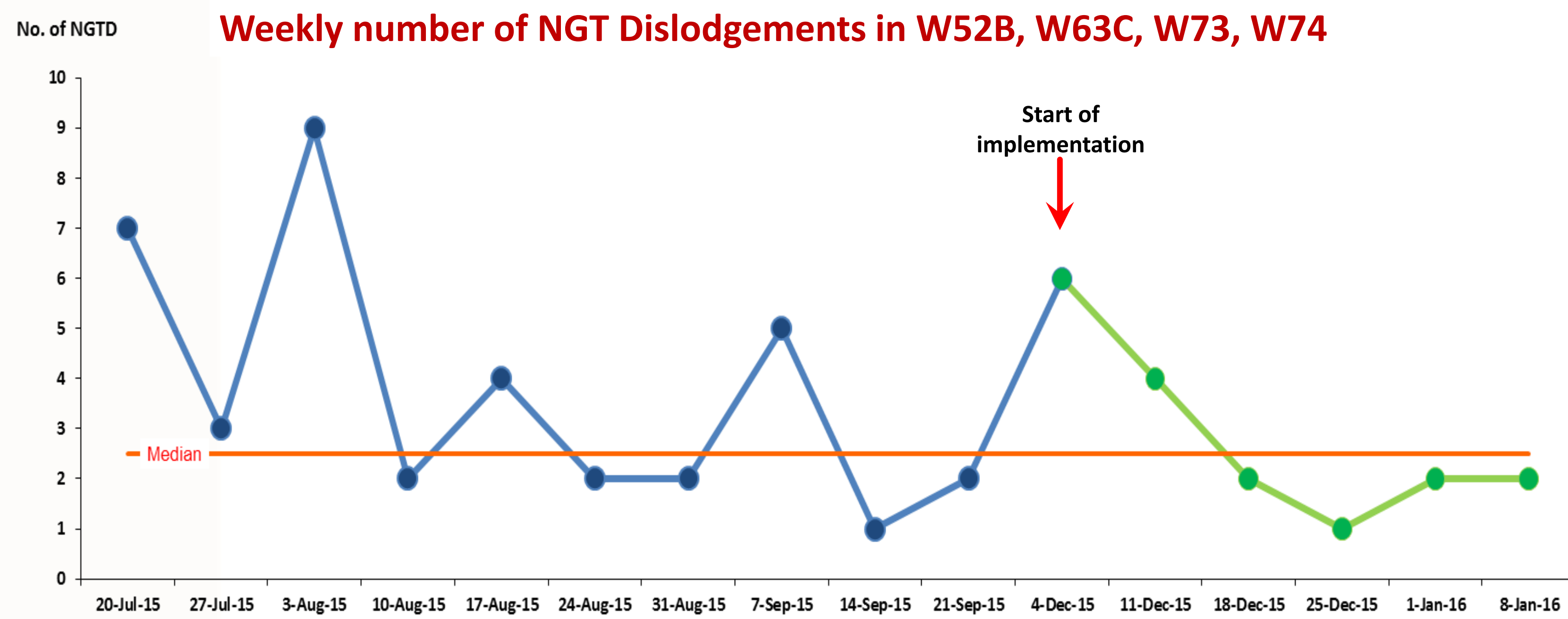
### Solution II: Elbow Immobiliser

Specially made using aluminum strips, cotton fabric with batting and velcro straps. Designed to be minimally restrictive yet effective, it limits only flexion of the elbow so patients cannot reach for the NGT. It was implemented for eight weeks in ward 52B.



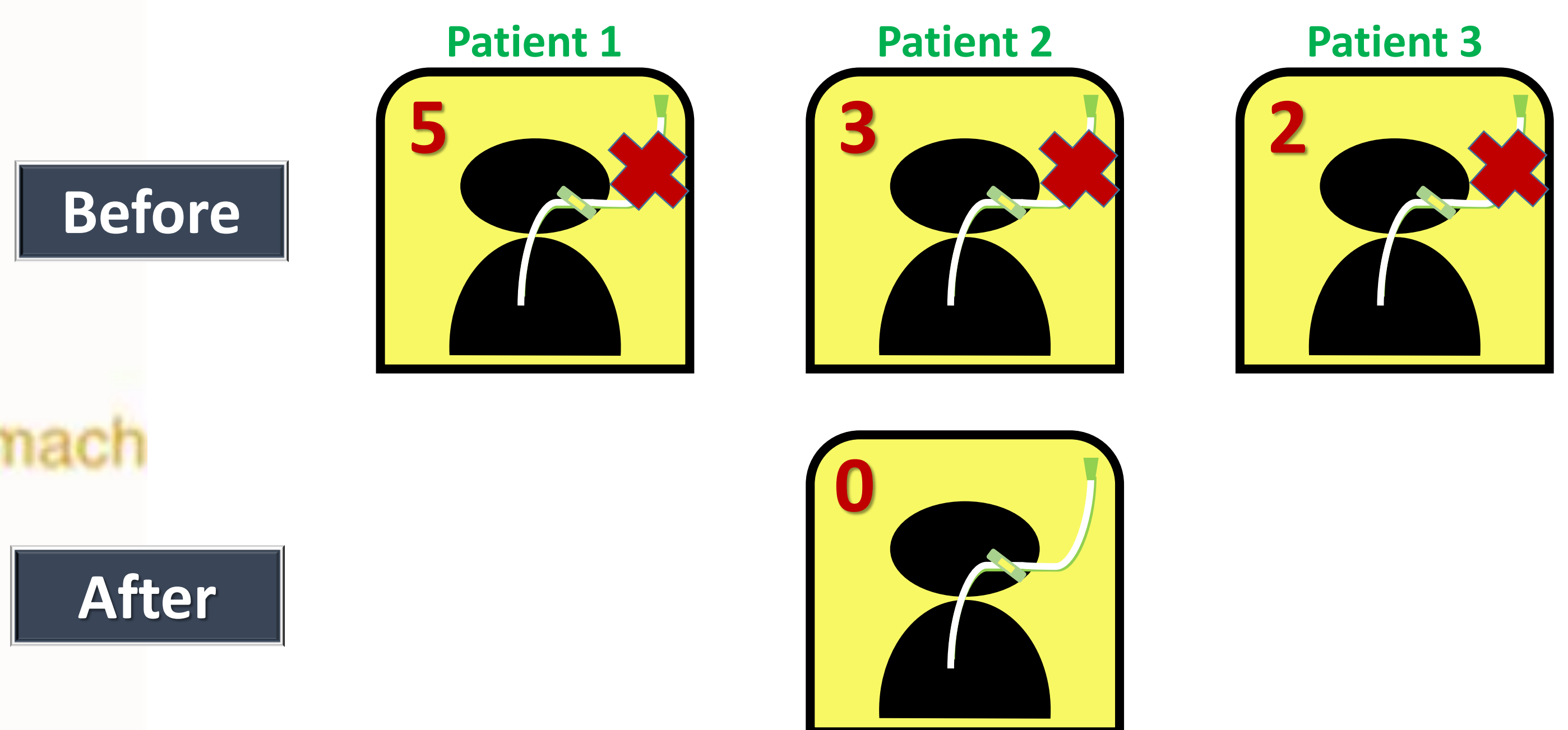
## Results

### After implementation of Solution I- NGT securement device

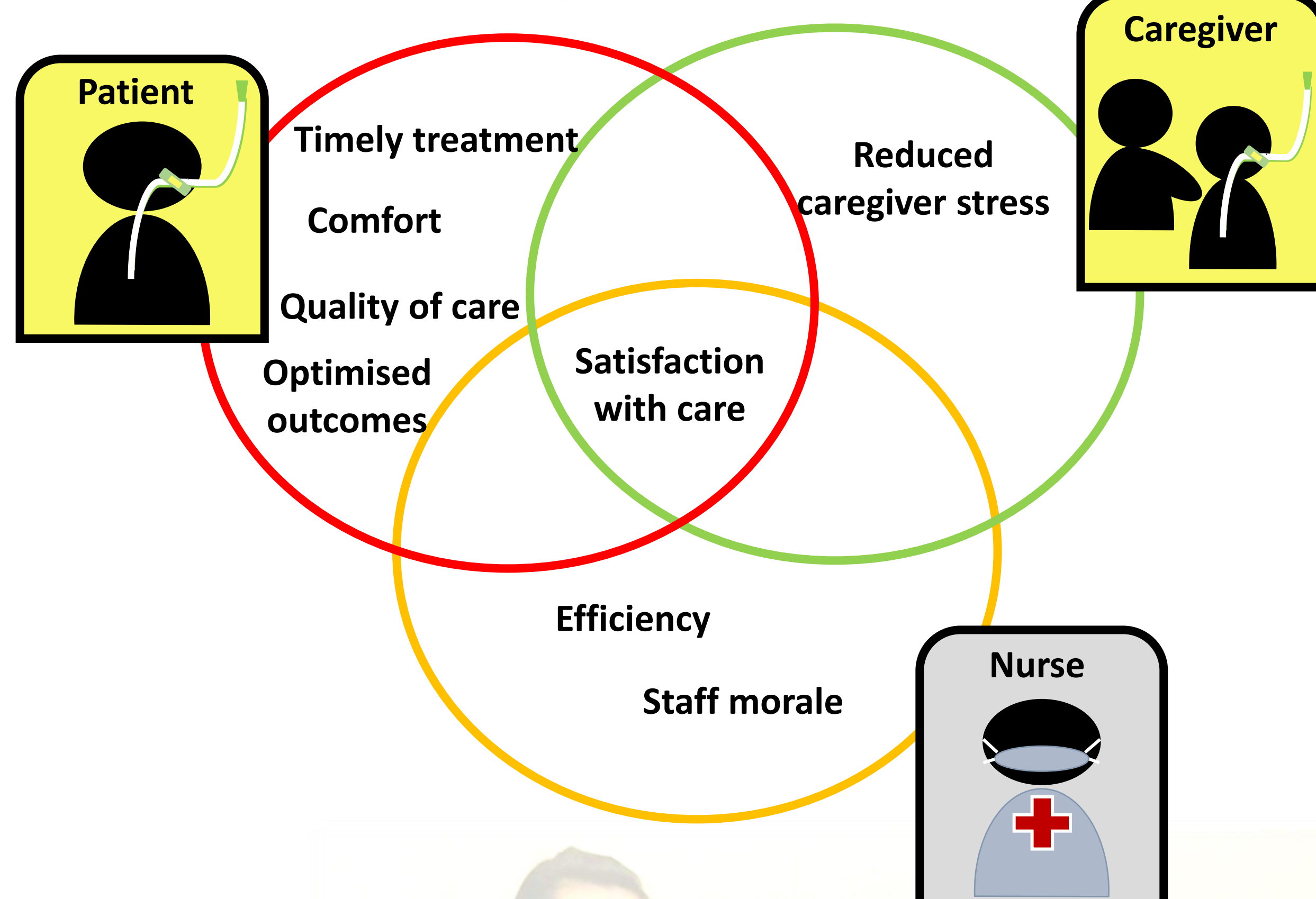


### After implementation of Solution II- Elbow Immobiliser

#### Observed number of NGT dislodgements



### Intangible benefits



### Tangible benefits

- **Reduced man-hours** of 12.5 mins/week for NGT re-insertion (excludes time sending patients for chest X-ray to confirm placement of NGT)
- **Cost avoidance:** requisites for procedure, chest X-rays, investigations/treatments required due to delayed or omitted feeds)

## Future Plans

Requires further evaluation and seeking of approval for NGT securement device and elbow immobilisers. Both solutions were well supported and evaluated by nurses to be effective. The team is currently refining the design and material of the elbow immobiliser to maximise comfort for patient use.

The NGT securement device and elbow immobilisers are potential game changers to the cluster-wide practices on care of patients with NGT and the use of minimally restrictive physical restraints.

