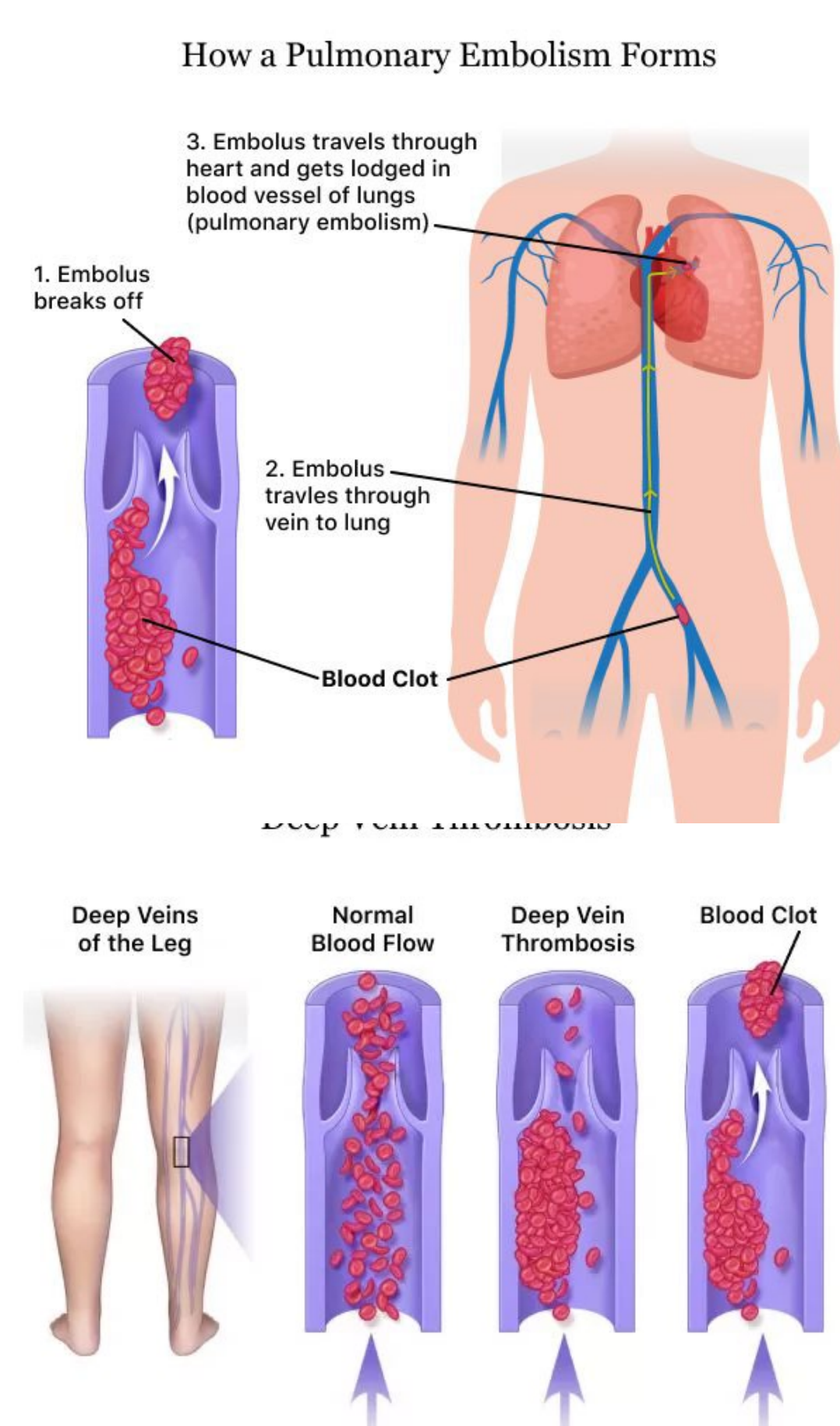


Marvelous Quality Improvement and MD Engagement to Prevent Postoperative PE/DVT

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Background

- 1 in 4 people worldwide die from thrombosis
- 60k – 200k Americans die of postoperative pulmonary embolism (PE) and deep vein thrombosis (DVT)
- 10% - 30% die within 1 month of diagnosis
- 33% of people with PE/DVT will have recurrence within 10 yrs
- >60% cases are hospital-associated
- occurred in 16.5% and 14.8% in patients with coronavirus disease 2019 (COVID-19)
- \$5 – 8 billion annual healthcare cost
- Average \$20k per treated patient per year



Problem

- In 2019, there was an increase in postop PE and DVT events at Keck Medical Center of USC.
- There was a lack of evidence-based PE & DVT prevention practices among multiple service lines.
- There was a lack of physicians and advanced practice practitioners (APPs) engagement in PE & DVT prevention.

Methods

To address the increase in postoperative pulmonary embolism (PE) and deep vein thrombosis (DVT) events, the following interventions were implemented:

- Collaborated with surgeons and APPs to create an evidence-based PE/DVT prevention library of service lines' clinical practices via organization's SharePoint site.
- Engaged surgeons and APPs to provide own perioperative PE/DVT prophylaxis specific to their service line/s.
- Facilitated 1:1 monthly meetings with physicians and APPs to share data, review fallouts, identify opportunities for improvement, and discuss sustainability of improved metrics.
- Conducted physician-led literature reviews to ensure current clinical practices are evidence-based.

Pre-Results

Figure 1: Baseline data represents Q1-2019 to Q4-2019 PE & DVT events. The aim is to **decrease by 15%** by the end of CY-2020.

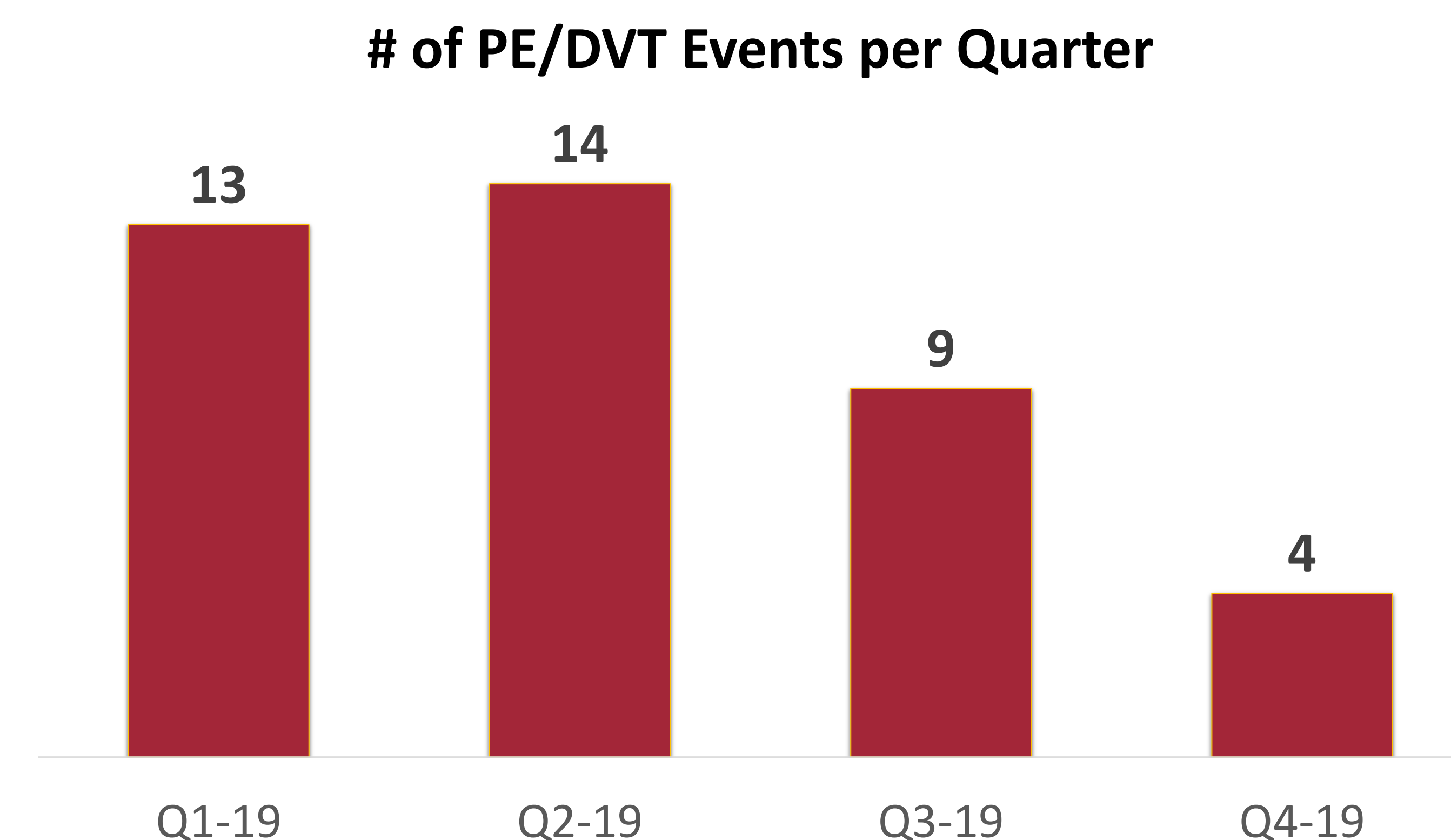
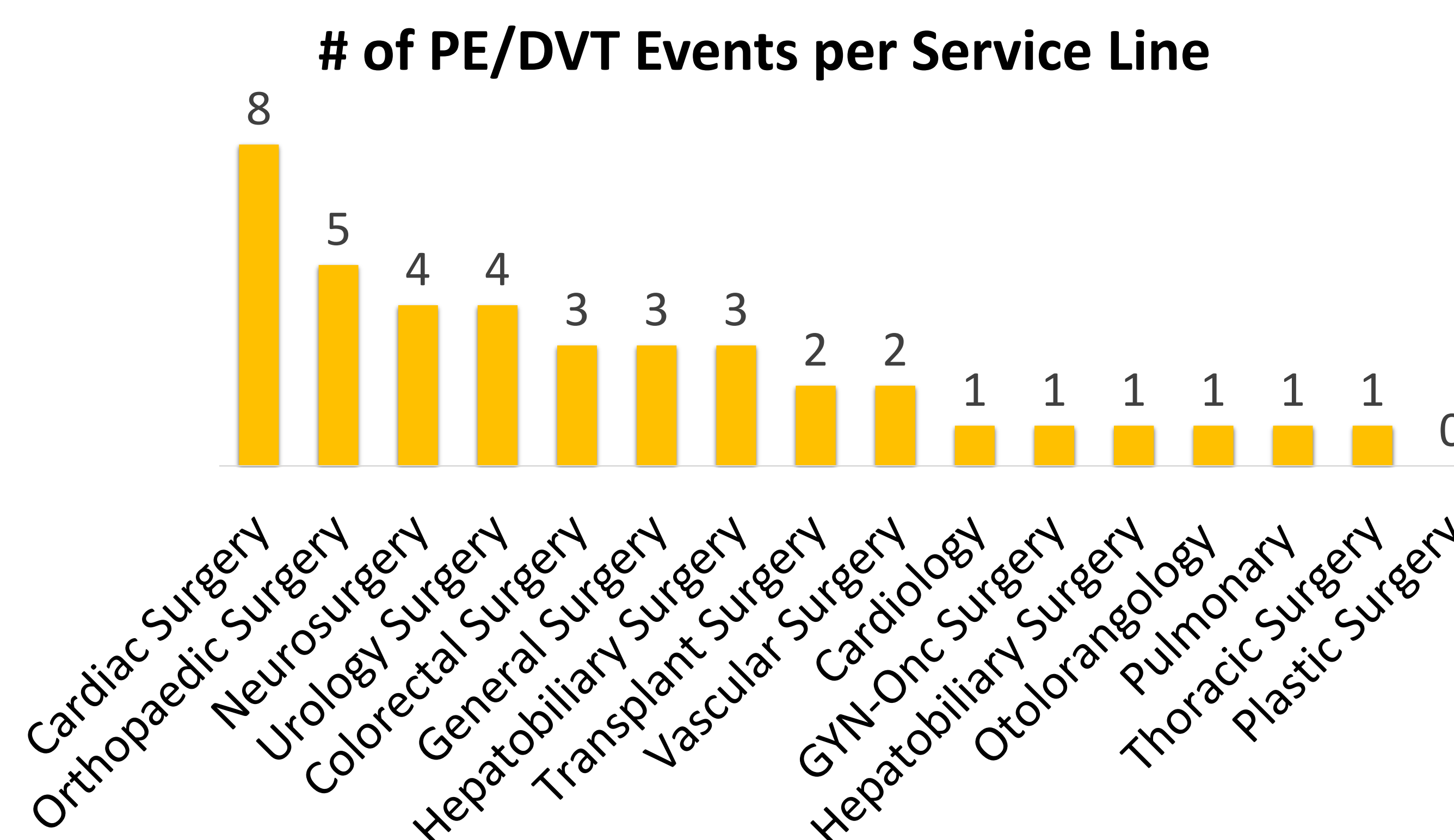


Figure 2: Baseline data represents Q1-2019 to Q4-2019 PE & DVT events per Service Line. The aim is to **decrease by 15%** by the end of CY-2020.



Clinical Implication

- Evidence-based PE/DVT prevention guidelines improve patient care and outcomes.
- Development of PE/DVT prevention library via SharePoint increase accessibility of the most updated clinical practice per service line.
- Continued data collection and analysis post intervention validate effectiveness and necessary revisions.

Post-Results

Figure 3: Post-intervention data represents Q1-2020 to Q4-2020 PE & DVT events. There is a remarkable **33% decrease post-intervention**.

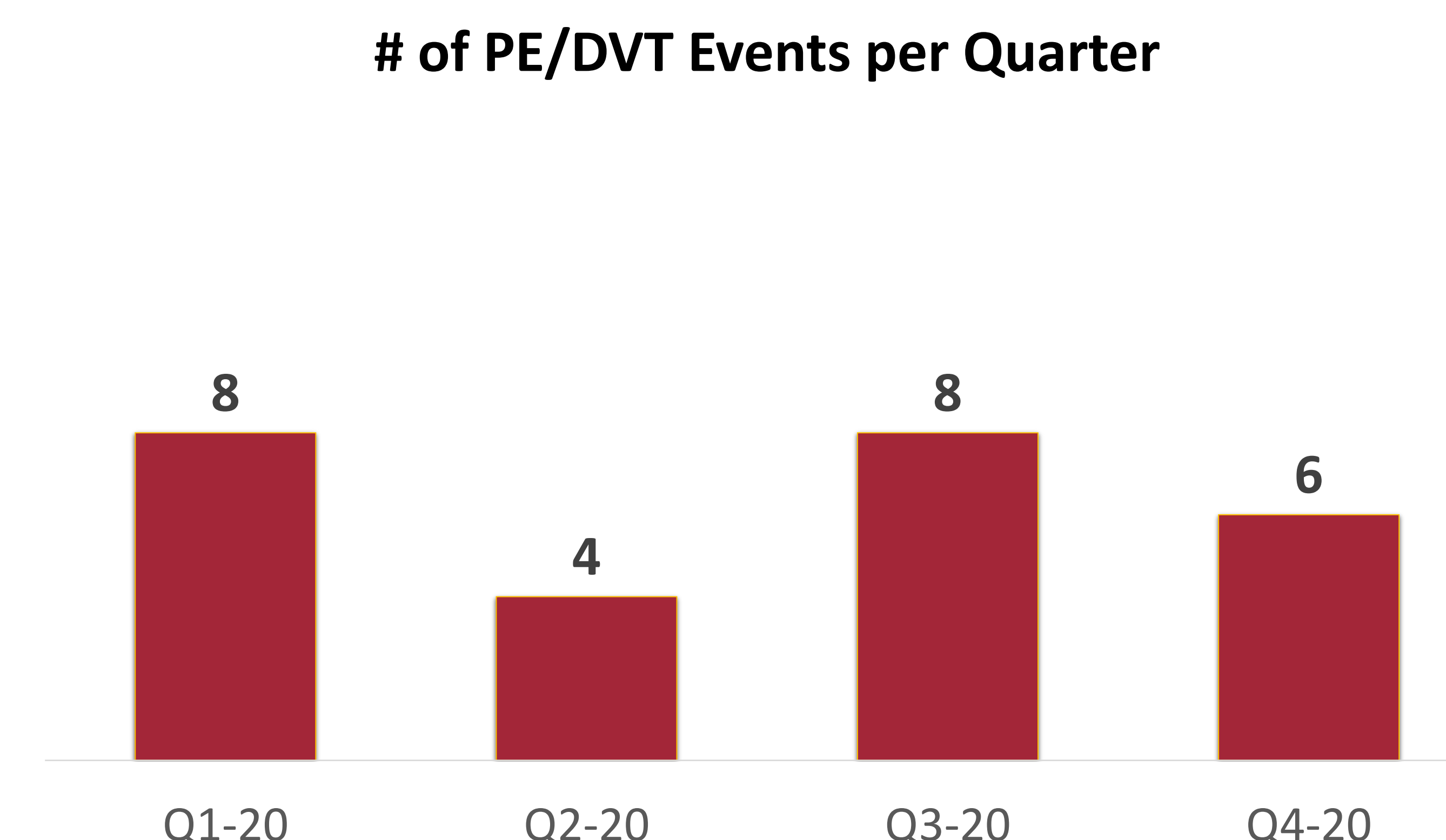
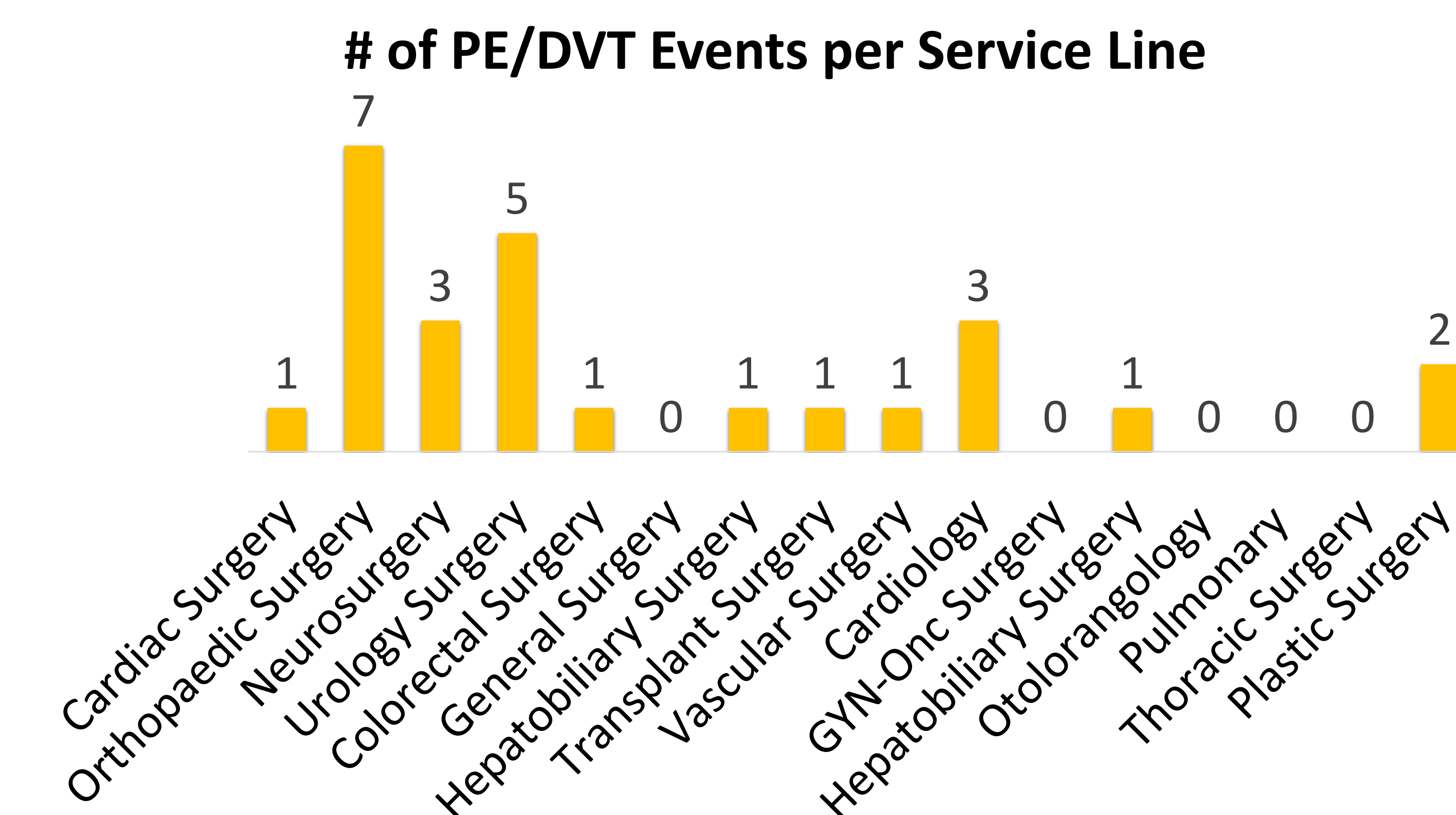


Figure 4: Post-intervention data represents Q1-2020 to Q4-2020 PE & DVT events per Service Line. There is a remarkable **33% decrease post-intervention**.



Conclusion

Rigorous quality improvement activities were conducted in partnership with the surgeons and APPs from multiple service lines to identify gaps and create strategic solutions to prevent postoperative PE/DVT events using the most recent literature reviews.

References

