

Insights from the NHS Hospital Episode Statistics on Primary Procedures During Hospital Admission in Patients with Chronic Limb Ischemia in Superficial Femoral and Popliteal Arteries

RWD175

Iqbal K, Lyons J
W. L. Gore & Associates (U.K.) Ltd.

OBJECTIVES

Chronic limb ischemia (CLI) is the most severe stage of peripheral arterial disease and is characterized by chronic pain at rest, tissue loss and a high risk of amputation¹ and death.² CLI is a major burden for patients and health care systems,³ necessitating costly interventions to restore blood flow and prevent limb loss.

This study aimed to provide an overview of primary procedures performed on inpatients with CLI in the superficial femoral and popliteal arteries (SFA/PA).

METHODS

Patients diagnosed with CLI between April 2022 and March 2023 were identified from the Hospital Episode Statistics (HES) dataset* based on specific diagnosis (ICD) and procedure (OPSC) codes. Primary procedures and delivery setting were analyzed.

RESULTS

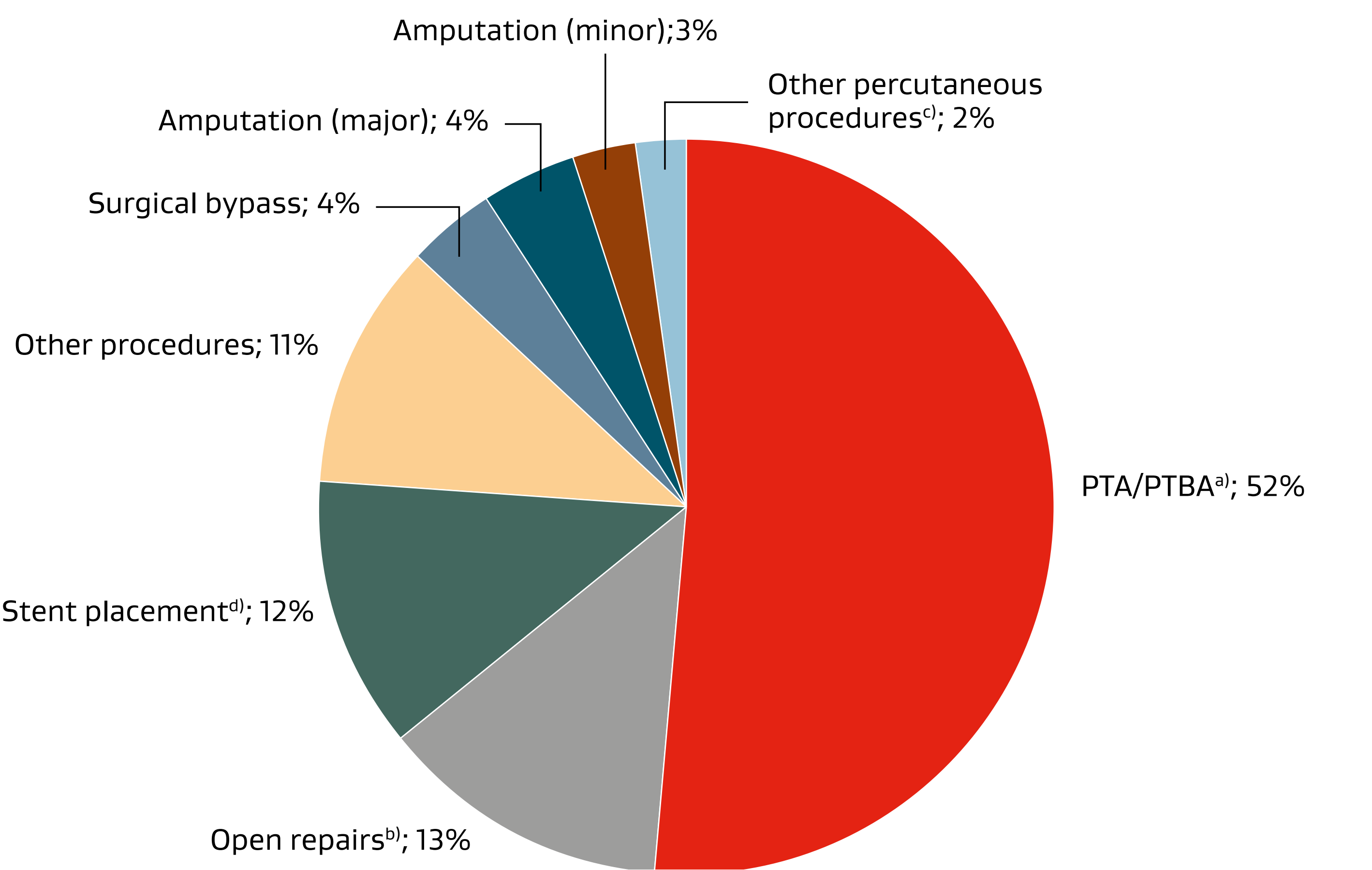
The study identified 7,325 CLI patients who had undergone revascularization of the SFA/PA between April 2022 and March 2023.

Primary Procedures

Percutaneous transluminal angioplasty (PTA) was the primary procedure most commonly performed, namely in 52% of all cases, followed by open repairs (e.g., thrombectomy, endarterectomy) in 13% and stent placement in 12%.

Amputations were necessary in 7% (4% major, 3% minor) and surgical bypass in 4% of cases. Further types of percutaneous procedure (e.g., embolectomy and thrombolysis) accounted for 2%, while other procedures accounted for 11% of the cases.

Figure 1 – Primary procedures



- a.) Percutaneous transluminal angioplasty/percutaneous transluminal balloon angioplasty.
- b.) Includes thrombectomy, endarterectomy, patch repair and pro fundoplasty.
- c.) Includes thrombolysis and embolectomy.
- d.) Includes metal, stent graft, bioabsorbable, drug-eluting, coated or embolic protection stents.

* HES data sourced from: VANTAGE® UK Copyright 2024 CorEvitas LLC, all rights reserved.
[†] Bare metal stents.

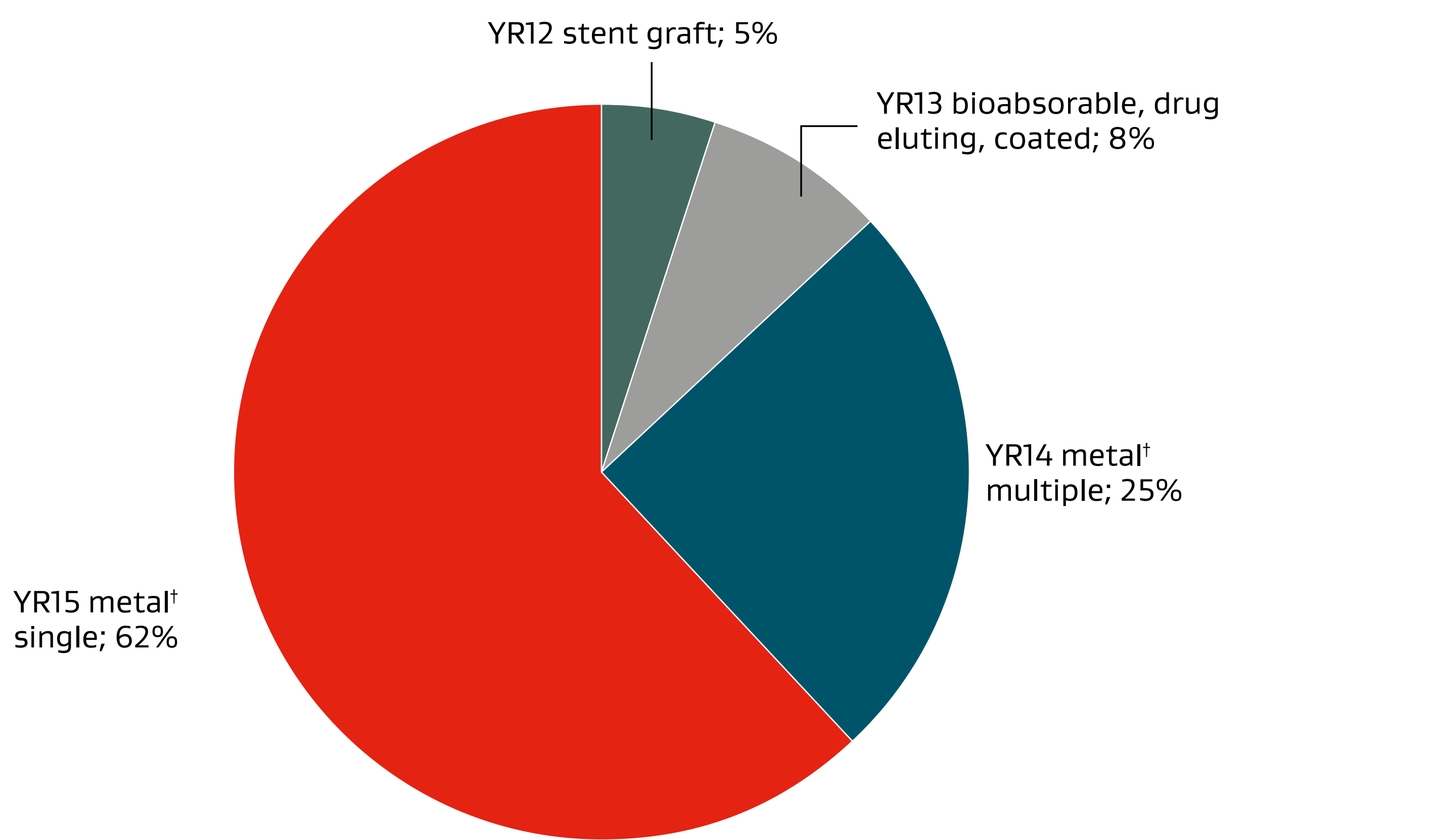
REFERENCES

- Reinecke H, Unrath M, Freisinger E, et al. Peripheral arterial disease and critical limb ischaemia: still poor outcomes and lack of guideline adherence. *European Heart Journal* 2015;36(15):932-938.
- Stern JR, Wong CK, Yarovinkina M, et al. A meta-analysis of long-term mortality and associated risk factors following lower extremity amputation. *Annals of Vascular Surgery* 2017;42:322-327.
- Duff S, Mafilios MS, Bhounsule P, et al. The burden of critical limb ischemia: a review of recent literature. *Vascular Health and Risk Management*. 2019;15:187-208. DOI: 10.2147/VHRM. S209241.

Stent type in stent placement procedures

An analysis of the stent placement procedures based on the Healthcare Resource Group (HRG) classifications showed that 87% of the stents used were metal and 13% entailed other types (i.e., stent grafts, bioabsorbable, drug-eluting or coated stents). The HRG and stent type descriptions were YR12 (stent graft), YR13 (bioabsorbable, drug-eluting, coated or embolic protection stent), YR14 (multiple metal stents) and YR15 (single metal stent).

Figure 2 – Stent type in stent placement



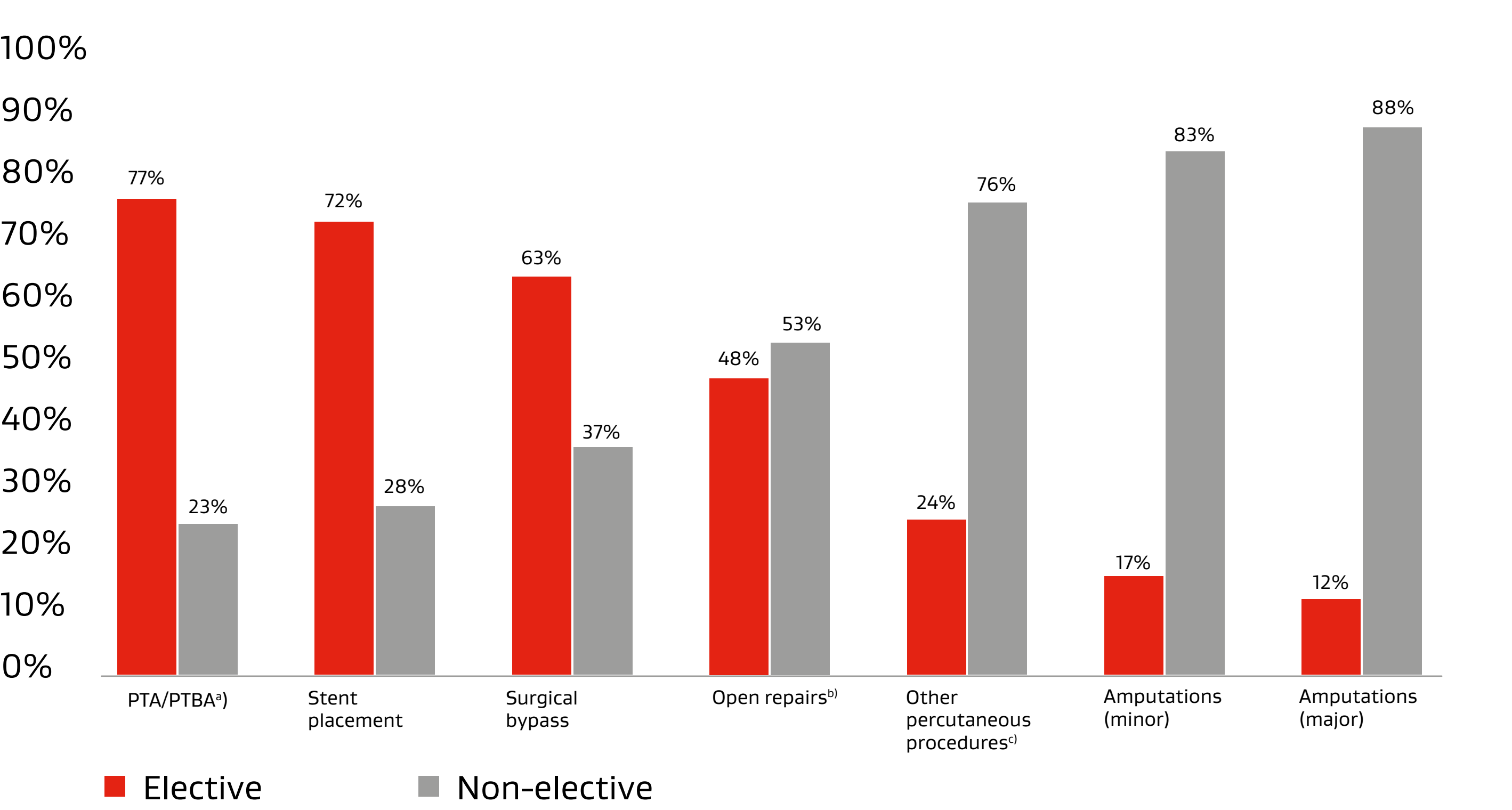
Delivery setting

Overall, 64% of the procedures took place in an elective (planned) setting and 36% in a non-elective (emergency) setting.

Percutaneous transluminal angioplasty (77%), stent placement (72%) and surgical bypass (63%) were primarily performed in an elective setting.

In the non-elective setting, 86% of cases involved amputations (major and minor), 76% percutaneous repairs and 53% open repairs.

Figure 3 – Delivery setting



- a.) Percutaneous transluminal angioplasty/percutaneous transluminal balloon angioplasty.
- b.) Includes thrombectomy, endarterectomy, patch repair and pro fundoplasty.
- c.) Includes thrombolysis and embolectomy.

CONCLUSIONS

- PTA was the most common intervention for CLI in the SFA/PA.
- Overall, 66% of procedures were minimally invasive, thus reflecting current clinical preferences.
- The high proportion of non-elective amputations (86%) underlines the critical nature of some cases, emphasizing the need for timely diagnosis and intervention.
- These findings underscore the importance of optimizing early interventional strategies with a view to reducing severe disease stages and improving outcomes for CLI patients.

