

## Foot and Ankle Surgery through two national lockdowns: what have we learned? Results from Phase 2 of the UK-FALCON Audit



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- on behalf of BOFAS Scientific Committee & Outcomes Committee

### Introduction

COVID-19 has had a profound effect on healthcare systems worldwide. The first UK national lockdown was from 23<sup>rd</sup> March to 11<sup>th</sup> May 2020. The second national lockdown was from 5<sup>th</sup> November to 2<sup>nd</sup> December 2020. Foot & Ankle Surgeons from across the UK contributed data on patients through the UK-FALCON national audit and Phase 1 examined COVID-19 related mortality rates before, during and after the first national lockdown. However, in the initial phases of the pandemic trusts introduced many changes in policies to safeguarding staff and patients. It was not, however, apparent from the initial phase whether the measures introduced had the desired effect of reducing infection rate and mortality. A second phase of the audit was therefore planned to capture data around a second lockdown.

### Objectives

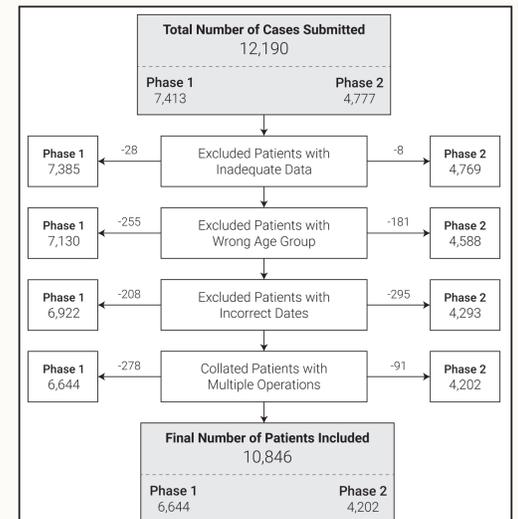
The primary aim was to determine the differences in COVID-19 infection rate and associated mortality in patients undergoing foot and ankle surgery between the two phases of the UK-FALCON audit, spanning the first and second national lockdowns. Secondary aims were to assess the effectiveness of 'Green' vs 'Blue' pathways.

### Methods

This was a combined retrospective (Phase 1) and prospective (Phase 2) multicentre national audit of foot and ankle procedures in the UK in 2020. The audit period for Phase 1 was between 13<sup>th</sup> January 2020 and 31<sup>st</sup> July 2020. This phase encompassed the first UK national lockdown. Phase 2 was between 1<sup>st</sup> September 2020 and 30<sup>th</sup> November 2020 and captured the second UK national lockdown.

All adult patients undergoing foot and ankle surgery in an operating theatre during the study period were included from 46 participating centres in England, Scotland, Wales and Northern Ireland.

Patients were also categorised by type of surgery, 'Trauma', 'Diabetic Foot', or 'Elective'. We also captured data on which pathways the patients were on for the duration of their admission. A screened, COVID-19 managed pathway was designated as a 'Green Pathway' and a non-managed COVID-19 pathway was designated a 'Blue Pathway'.



### Results - Cases & Mortality

There was a significant increase in confirmed COVID-19 cases in Phase 2; with 35 confirmed cases of COVID-19 in Phase 1 (0.53%) vs 43 confirmed cases in Phase 2 (1.02%) (p=.003).

However, there were significantly fewer respiratory complications due to COVID-19 during Phase 2 (25.58% vs 71.43%, p<.05), and the proportion of patients needing any form of treatment for COVID-19 was also significantly lower in Phase 2 (18.60% vs 54.29%, p=.013).

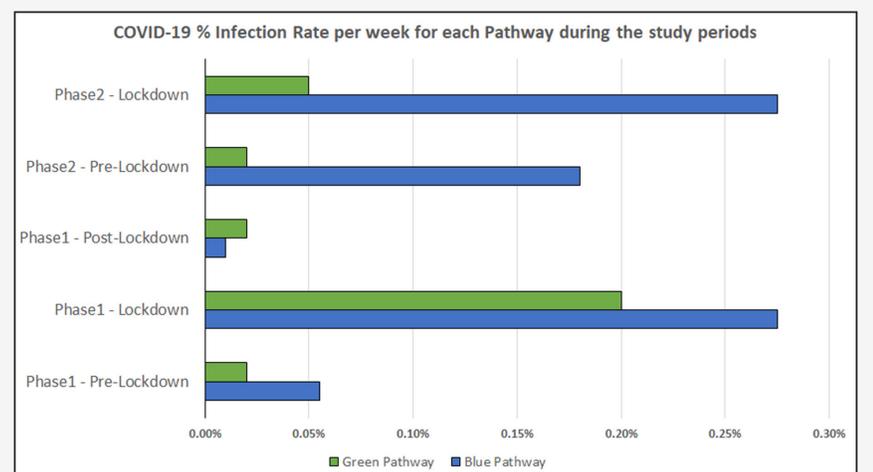
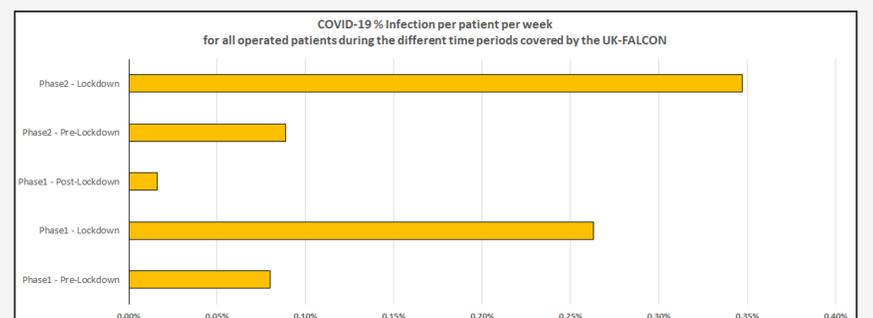
In Phase 1, there were nine patients (25.71%) with a mortality associated with COVID-19. However, this number was significantly lower in Phase 2 with two (4.65%) COVID-19 related mortalities (p = 0.01).

### Results - Impact of Pathways

Trauma patients on a green pathway reduced from Phase 1 to Phase 2 (14.04% vs 11.63%, p = 0.015). Diabetic foot patients on a green pathway increased from Phase 1 to Phase 2 (7.25% vs 17.07%, p = 0.010). Elective patients on green pathways significantly increased from Phase 1 to Phase 2 (49.73% vs 90.83%, p < 0.001).

Overall, during Phase 1 there was no statistically significant difference in COVID-19 infection rate between patients on blue and green pathways. However, during Phase 2, being on a green pathway was associated with a significantly lower incidence of contracting COVID-19 (Odds ratio: 0.077, 95% CI 0.027 to 0.215).

Amongst patients contracting COVID-19, there was no difference in mortality rate between patients on a green or blue pathway (p = 0.784).



### Conclusions

COVID-19 infection was rare in foot and ankle patients. Although a higher rate of COVID-19 infection was seen in foot and ankle surgery in phase 2, there was a significant decrease in complications and mortality. Furthermore in Phase 2, patients on a Green Pathway were approximately 13 times less likely to contract COVID-19.

### Clinical Relevance

- This paper highlights the significant improvement in COVID-19 care over the course of 2020, with improvements in COVID-19 related mortality rates
- This paper also demonstrates that once established, Green pathways were effective in reducing COVID-19 infection rates even at the height of the pandemic

For the full UK-FALCON Audit report and complete list of contributors - please visit: <https://www.bofas.org.uk/clinician/research/bofas-national-audits>



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