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**Appendicectomy during the COVID-19 pandemic: an assessment of the change in practice within the West of Scotland**

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**Aims:** The Covid-19 pandemic has significantly impacted emergency and elective surgical activities. Multiple surgical professional bodies initially recommended appendicitis be managed conservatively or with judicious open surgery to mitigate potential risks with Covid-19 transmission. This study compares the investigation, operative findings and outcomes of patients who underwent appendicectomy before and after the National lockdown.

**Methods:** A multicentre retrospective cohort study of patients who had emergency appendicectomy in four West of Scotland hospitals between September 2019 and November 2020. Electronic records were interrogated and patients dichotomised into two groups with those presenting before the introduction of the UK National lockdown of 23<sup>rd</sup> March 2020 compared to those presenting post-lockdown.

**Results:** A total of 559 appendicectomies were performed (280 pre-lockdown and 279 post-lockdown) in four hospitals and included in the analyses. More males than females had appendicectomy in the post-lockdown period (60.6% vs 52.1%,  $p = 0.044$ ). Pre-operative CT scanning was performed more often post-lockdown (71.7% vs 56.8%,  $p < 0.001$ ) and an open approach was adopted more frequently post-lockdown (19.0% vs 3.6%,  $p < 0.001$ ). The proportion of operations for complicated appendicitis increased post-lockdown (31.9% vs 22.1%,  $p = 0.009$ ). Median hospital stay was equal in both groups (3 vs 3 days,  $p = 0.787$ ). Post-operative complication rates were similar in both groups apart from a higher 30-day re-admission rate post-lockdown (7.9% vs 3.6%,  $p = 0.028$ ).

**Conclusion:** Covid-19 has resulted in significant modifications to the pre-operative work-up and surgical approach to patients undergoing emergency appendicectomy. Whilst the proportion of patients with complicated appendicitis has increased post-lockdown, overall clinical outcomes remain similar.