A year of Microbiology in a National Burns Unit during the COVID-19 Pandemic

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Retrospective Cohort Nov'19-Oct'20 Aims

- 1. Assess the effects of the COVID-19 pandemic on presentation and microbiology of our burns patients
- 2. Assess our current surgical antimicrobial prophylaxis regime and its effectiveness by analysing any antimicrobial resistance profiles present.

Methods

- Conducted through electronic chart review
- Inclusion criteria
 - Admitted patients: November 2019 -October 2020
 - Initial Debridement and Grafting of burns in main burn theatre
 - Patients with Microbiology Swabs Pre (admission) and post op (graft check) with a intra operative tissue culture
 - Single dose IV Augmentin at induction of Anaesthetic as per local guidelines.





Results



(Number of patients)

Average Length of Stay (Days)

Delaved Presentation > 5 days before referral

No perioperative COVID infections detected

COVID

(Lockdown Periods)

15

21

(1-62)

66%

Total

40

76

(1-517)

45%

- 3 out of 40 cases grew resistant organisms at post operative culture
- **Resistant Bacteria**
 - 1. MRSA 2. Pseudomonas 3. Enterococcus



Pre op

no growth

commensals

E.Cothaerobes

strept

mssa





29%

- No Complications recorded.
 - No graft failure
 - No C. Diff infection
- 3 Cases of Pseudomonas cultured
 - All Received pre operative Augmentin single dose
 - Single case of resistance no complications recorded

Discussion

- Deleterious effects of delayed presentation with increased rates of poly microbial infection
 - Cause of delayed presentation? public fear to present and will to manage locally
 - Need for education of referring units and population
- What should be done in future pandemics/times of crisis
 - The second lockdown (Jan Feb 2021) Burns unit remained separate to ICU
 - Delayed presentation decreased and therefore less organisms grown.
- Co-Amoxiclav is safe in our small cohort and did not show a resistant profile emerging







