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Surgical Site Infections in Colorectal Surgery and Generic Prevention Bundles

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BACKGROUND

Surgical site infection (SSI) is one of the most common complications after colorectal surgery. In Europe, its SSI rates have seen only a modest decrease compared to other surgical procedures.(1,2) The HAI-Net SSI protocol has been used to study SSI over the last two decades, identifying colorectal procedures as the ones with the highest SSI rates.(2) In order to reduce SSI rates, several SSI prevention bundles have been introduced, however, very few are tailored to colorectal surgery.(1-9)

METHODS

A retrospective descriptive analysis of the colorectal surgeries performed between 2018 and 2021 was undertaken. SSI rates and SSI classification, as well as compliance to the Portuguese SSI prevention bundle are described.

RESULTS

Seven hundred and ninety-five colorectal surgeries were studied according the HAI-Net SSI protocol(2). SSI rates ranged from 19.9% (2021) to 29.0% (2020), with a mean of 24.6% (Figure 1). Organ/space infection rates ranged between 26.4% (2018) and 47.6% (2021) (Figure 2).

Compliance to the SSI prevention bundle was underwhelming. However, we found that compliance to individual elements has grown over the years, being skin preparation with 2% CHG (68.2%) and avoidance of hair removal (62.2%) those with higher scores (Figure 3).

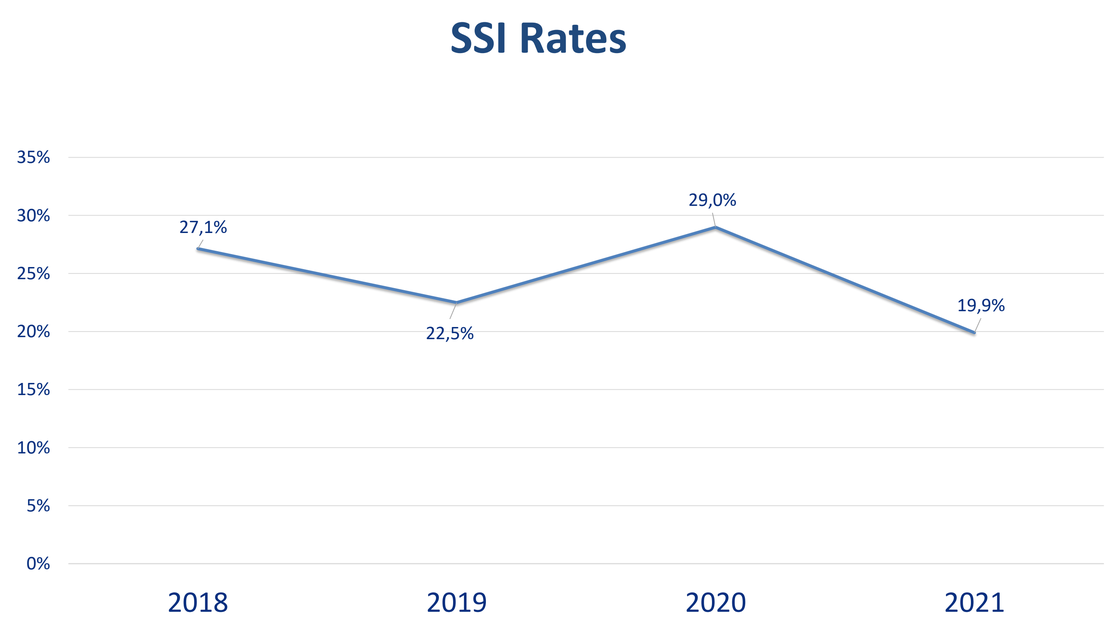

Figure 1 – Surgical Site Infection Rates between 2018 and 2021

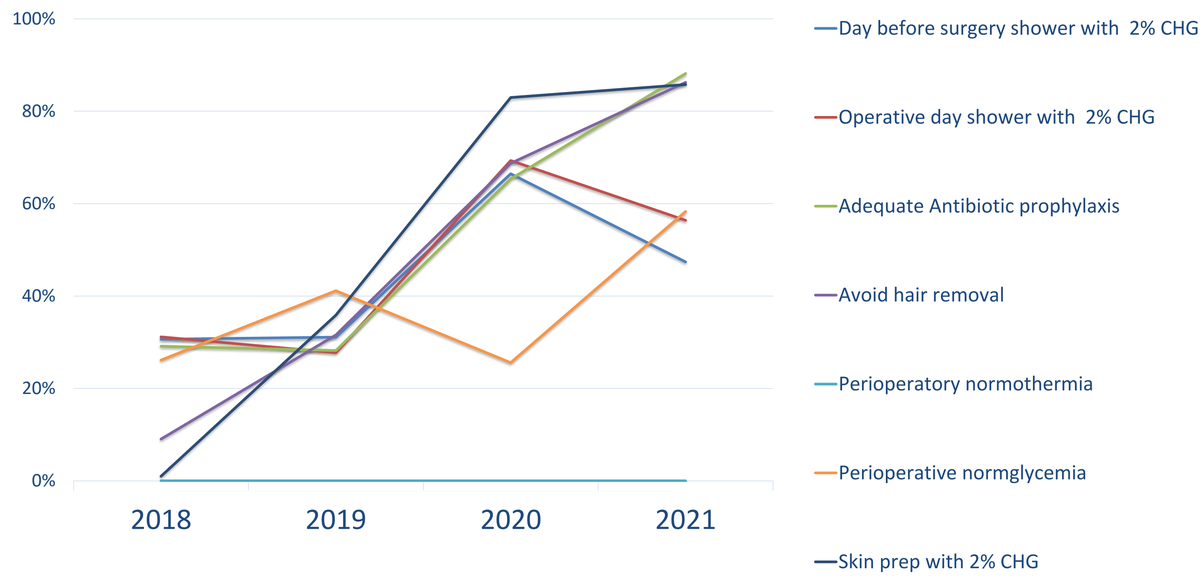

Figure 3 –Surgical Site Infection Prevention Bundle Compliance

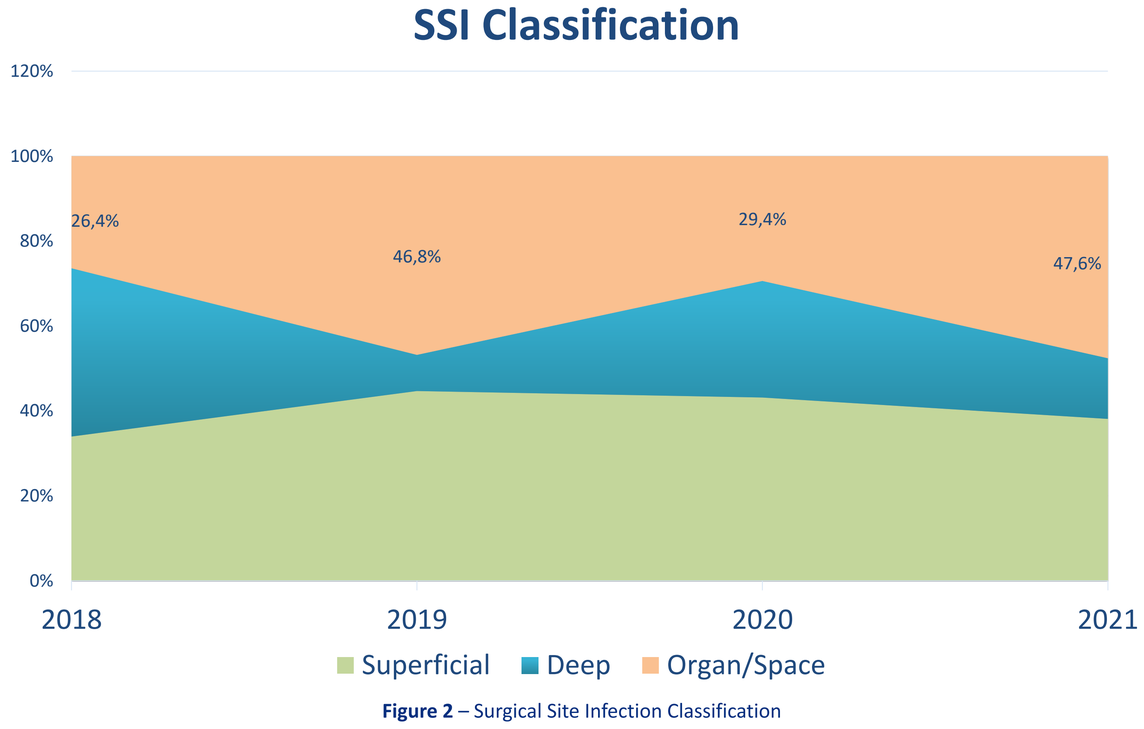

Figure 2 – Surgical Site Infection Classification

CONCLUSIONS

Despite the gradual increase in compliance to the Portuguese SSI prevention bundle, there hasn't been a significant decrease in colorectal SSI rates. The development of prevention bundles tailored to colorectal surgery might be an adequate tool for a sustained reduction in SSI rates.

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