

## AB218. Efficacy of prophylactic negative pressure wound therapy in closed laparotomy incisions in high risk surgical patients: results from a single centre experience

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**Background:** Surgical site infection (SSI) is among the most feared complications of abdominal surgery and is associated with significant morbidity and mortality. Emergency laparotomy and colorectal surgery has the highest rates of SSI pertaining to the immunocompromised state and contaminated operative field respectively. Numerous studies have demonstrated the superiority of negative pressure wound therapy (NPWT) in closed incisions. The objective of this single institutional study was to estimate the SSI rates for at-risk closed laparotomy wounds managed with prophylactic NPWT.

**Methods:** In this prospective observational study, data were collected over a period of 3 months. All adult patients undergoing general and colorectal surgery in elective and emergency settings received prophylactic NPWT. Wound assessment was performed prior to discharge and at follow up. Outcomes measured included SSI rates, duration of dressing, time to wound healing, length of stay and patient experience.

**Results:** A total of 34 patients were included. The overall incidence of SSI was 5.8% (2/34). Mean duration of dressing was  $6.24 \pm 1.02$  days. Wound healing on average was at  $13.5 \pm 3.56$  days. The mean time to follow up was  $41.14 \pm 16.36$  days. 73.6% of the patients reported good experience with the use of NPWT.

**Conclusions:** In our experience, prophylactic use of negative pressure wound therapy proved to be an effective method in reducing the incidence of SSI and should be considered in high risk patients undergoing major abdominal procedures.

**Keywords:** Laparotomy; negative pressure wound therapy (NPWT); surgical site infection (SSI)

doi: 10.21037/map.2020.AB218

**Cite this abstract as:** Aamir A, Fleming C, Condon E, Waldron D, Coffey JC, Peirce C. Efficacy of prophylactic negative pressure wound therapy in closed laparotomy incisions in high risk surgical patients: results from a single centre experience. *Mesentery Peritoneum* 2020;4:AB218.