

A burn wound management strategy, including increased use of antiseptics and nanocrystalline silver dressings†, may reduce costs, help to optimise treatment of infections, reduce antibiotic use and help to prevent development of drug resistance

It can also help to reduce the incidence of sepsis, including sepsis caused by *Pseudomonas aeruginosa*, and can be cost effective in hospitalised burn patients



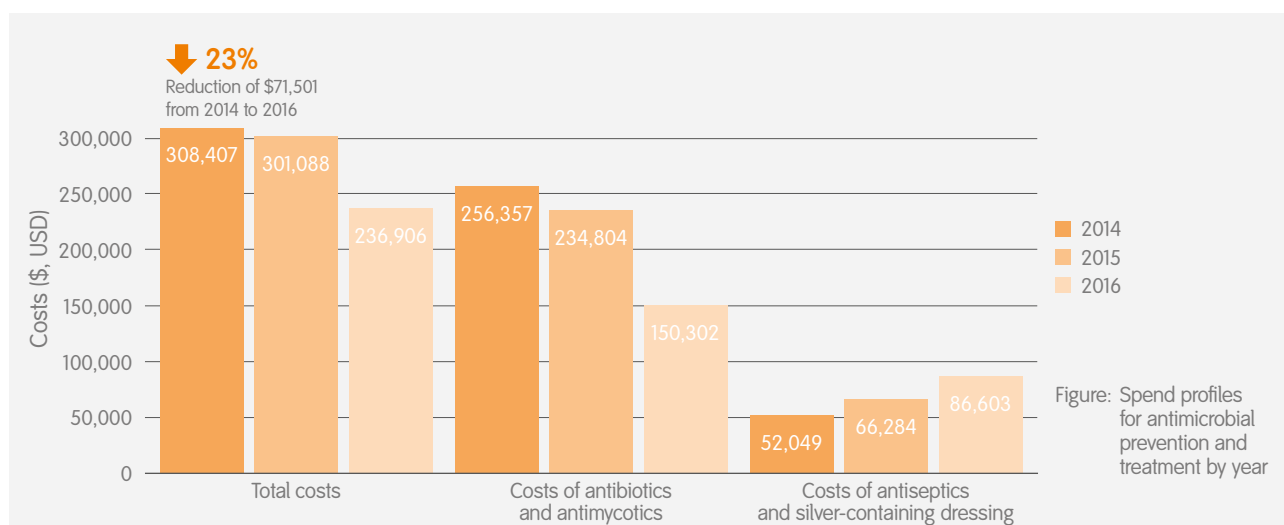
Study design

- A retrospective analysis of infection prevention and treatment in hospitalised burn patients before and after the introduction of a new burn wound management strategy to reduce the use of systemic antibiotics and increase the use of topical antimicrobial products (silver-containing dressings and antiseptics)
- Assessment reports of 2,000 patients (mean age 45.7 years) with an 18.4% mean body surface area affected by burn who were treated between 2014 and 2016 at a single centre in Poland were analysed



Key results

- After implementation of the new burn wound management strategy in 2015
 - Total costs of antimicrobial prevention and treatment decreased by \$71,501 (USD) (Figure)
 - Expenditure decreased by \$106,055 (USD) for antibiotics and antimycotics and increased by \$34,554 (USD) for dressings and antiseptics
 - There were 60 sepsis cases in 2014 and 46 in 2016, with a decrease in cases caused by *P. aeruginosa* (12 cases in 2014 and 1 case in 2016)
 - Mortality rate: 5.7 cases in 2014 and 4.9 cases in 2016
 - Sensitivity to most antibiotics used to treat *P. aeruginosa* infections increased in 2016



Evidence in focus (continued)



Conclusion

A burn wound management strategy incorporating topical antiseptic cleansers and nanocrystalline silver dressings[†] can be cost effective and help to optimise the treatment of infections and decrease the use of antibiotics therefore helping to reduce the development of drug resistance in *P. aeruginosa*.



Considerations

- A sharp increase in antibiotic-resistant isolates at this burn centre in Poland, most likely due to extensive antibiotic use in 2014, necessitated a new strategy for prevention and treatment of infections using topical antimicrobials
- A reduction of ~20% in total costs of antibiotics and antimycotics was achieved in this study: antibiotic expenditure decreased whereas expenditure for antimicrobial dressings and antiseptics increased.



Study citation

*Glik J, Łabuś W, Kitala D, et al. A 2000 patient retrospective assessment of a new strategy for burn wound management in view of infection prevention and treatment. *Int Wound J*. 2017 Dec 15. [Epub ahead of print]

[†]ACTICOAT and ACTICOAT Flex 3 were used in this study. This local burn wound management strategy may have included other interventions, such as debridement and enteral/parenteral nutrition.