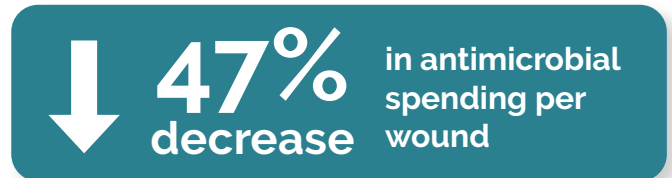
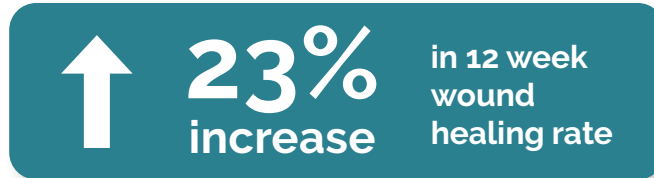


Routine Fluorescence Imaging to Detect Wound Bacteria Reduces Antibiotic Use and Antimicrobial Dressing Expenditure While Improving Healing Rates: Retrospective Analysis of 229 Foot Ulcers

N. Price, Diagnostics, 2020

Key outcomes of adding fluorescence imaging to routine wound care:



Research Questions:

Does adding fluorescence imaging (MolecuLight *i:X*) for detection of wound bacteria to routine wound assessment impact:

1. Antimicrobial usage and dressing expenditure?
2. Wound healing rates?

Study Design:

- Retrospective pre/post intervention analysis of 229 wounds from a UK-based diabetic foot care clinic
- All patients attending the foot clinic for wound care between April 2018 – March 2020 were included in the analysis
- Data was collected from 2 time periods for comparison as follows:

	Year 1 (2018/2019)	Year 2 (2019/2020)
Treatment and dressing selection guided by:	<p>Standard of care, which included:</p> <ul style="list-style-type: none"> • patient history • assessment of clinical signs and symptoms of infection • vascular assessment 	<p>Standard of care and fluorescence imaging with the MolecuLight <i>i:X</i> to enhance detection of elevated wound bacterial burden.</p> <p>27% increase in wounds seen despite similar clinic hours and staffing.</p>



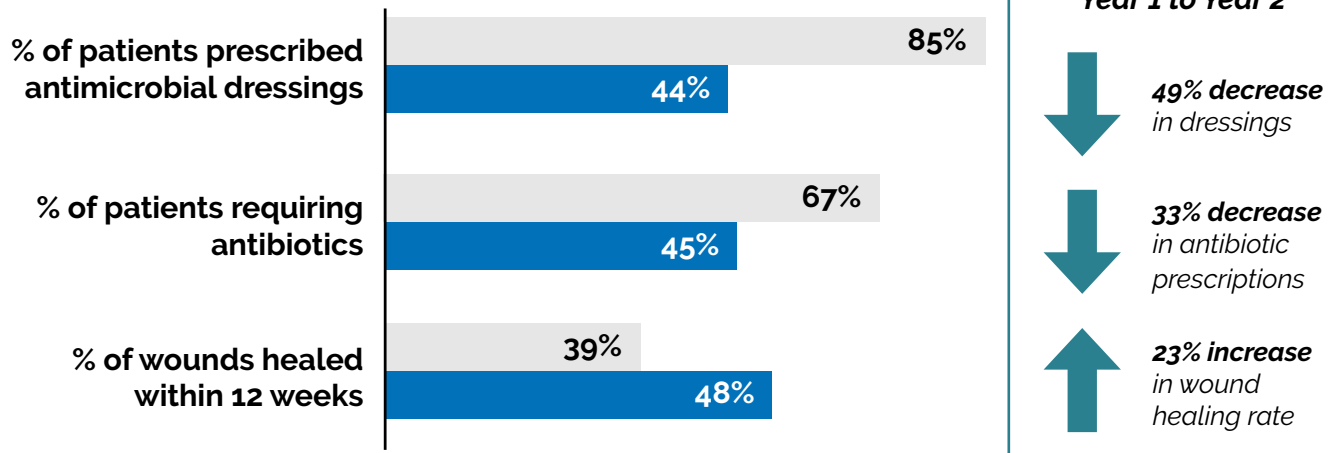
Results

Year 1 (2018/2019)

Standard of care alone

Year 2 (2019/2020)

Standard of care + fluorescence imaging (MolecuLight *i:X*)



Cost savings of incorporating fluorescence imaging (MolecuLight *i:X*) into routine workflow include:



33% decrease in annual antimicrobial dressing expenditure



47% decrease in antimicrobial spending per wound

Conclusions

Routine use of fluorescence imaging was associated with reductions in both antimicrobial prescription and associated expenditure. Fluorescence imaging also had a noticeable impact on the quality of wound care provided to patients and the number of wounds healed within 12-weeks.

“Having the ability to know at the point-of-care whether a wound has significant levels of bacteria that may be indicative of infection enables us to offer the safest care for our patients and also provides instant clinical feedback on treatment efficacy” - Nadine Price, DPM, study author

Price, N. Routine Fluorescence Imaging to Detect Wound Bacteria Reduces Antibiotic Use and Antimicrobial Dressing Expenditure While Improving Healing Rates: Retrospective Analysis of 229 Foot Ulcers. *Diagnostics* 2020, 10(11), 927.

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