Executive Summary:
Antimicrobial Resistance in Wound Care – Consensus Guidance & Alternative Solutions

Background
Antimicrobial resistance (AMR) is a top global health threat, with the World Health Organization (WHO) ranking it among the most urgent priorities. In wound care, chronic and hard-to-heal wounds often harbor resistant bacteria, and up to 60%[1] contain biofilms, making infections harder to treat.

- In the U.S., there are **over 2.8 million antimicrobial-resistant infections each year**, resulting in more than **35,000 deaths** (CDC, 2019 AR Threats Report).
- By 2050, **AMR is predicted to cause 10 million deaths annually**[2]—more than cancer.
- The CDC estimates that 30% of outpatient antibiotic prescriptions are unnecessary.[3]

Misuse and overuse of antimicrobials in healthcare, agriculture, and livestock—combined with poor infection prevention and a lack of new drug development—are driving resistance, resulting in higher morbidity, longer hospital stays, and increased costs. Systemic antibiotics have long been relied upon for wound infections, but inappropriate prescribing has accelerated AMR and reduced effective treatment options.

This highlights the urgent need for antimicrobial stewardship (AMS). To support this, a multidisciplinary panel of wound care experts developed consensus guidance focused on biofilm management, infection prevention, and AMS strategies that balance effective infection control with preserving antibiotic efficacy.

Read the full paper here: https://www.hmpgloballearningnetwork.com/site/wounds/supplement/antimicrobial-resistance-wound-care-expert-panel-consensus-statements.

Key Insights from the Consensus Paper

- **AMR is increasing** — resistant pathogens have increased by 20% in recent years.
- **Chronic wounds = high AMR risk** — 60% contain biofilms, making infections harder to treat and more likely to recur.[1]
- **Antimicrobial stewardship is essential** — antibiotics should only be used when clinically indicated, for the shortest effective duration, and guided by culture results.
- **Biofilm-based wound care (BBWC)** — regular cleansing, debridement, and moisture balance are critical to reduce microbial burden.
- **Topical antimicrobials & non-antibiotic options** can help reduce systemic antibiotic reliance but should be chosen carefully to avoid contributing to AMR.
- **Alternative solutions** such as DACC-coated dressings, methylene blue/gentian violet dressings, oxygen therapy, nitric oxide, probiotics, and chelating agents show promise for infection prevention and control without driving AMR.

Alternative Solutions for AMS
While antimicrobial stewardship emphasizes limiting unnecessary antibiotic use, clinicians still need effective ways to manage microbial burden and aid in infection prevention. Non-antibiotic, resistance-free technologies can play a critical role in this balance, helping control pathogens, disrupt biofilms, and support healing without adding to the AMR crisis.

Two proven options are Hydrofera Blue® and Cutimed® Sorbact®, each offering unique mechanisms that align with AMS strategies:

Hydrofera Blue®

- **Unique Antibacterial Approach** — Combines methylene blue and gentian violet to target biofilms and gram-positive bacteria without using traditional antibiotics.
- **Biofilm Management** — Proven effectiveness in disrupting and managing biofilms in chronic wounds.*
- **Broad-Spectrum Efficacy** — Supports infection risk reduction and improved healing outcomes across wound types.
- **Clinical Versatility** — Can be used alongside other advanced wound care dressings without interference.

* This is a Canadian claim.

Cutimed® Sorbact®

- **Sorbact® Technology** — Dressings are lined with DACC (dialkyl carbamoyl chloride), a hydrophobic fatty acid derivative that removes bacteria by irreversibly binding them to its surface without releasing active substances into the wound. Therefore, antimicrobial resistance is not expected.
- **Pathogen Binding Efficacy** — Effective against a wide range of pathogens, including antibiotic-resistant strains (e.g., MRSA).
- **Proven Clinical Outcomes** — Reduces surgical site infections[8] and antibiotic use in vascular surgery and cesarean patients.

Effective against the WHO's top pathogens

The World Health Organization (WHO) lists families of bacteria that pose the greatest risk to human health in the development of antibiotic resistance. Those pathogens are also the most common in wounds.[5, 6, 7]

Pathogen	Hydrofera Blue	Sorbact (DACC Technology)
Enterococcus faecium	Not Listed	✓
Staphylococcus aureus	✓	✓
Klebsiella pneumoniae	✓	Not Listed
Acinetobacter baumannii	Not Listed	✓
Pseudomonas aeruginosa	✓	✓
Enterobacter species	Not Listed	✓

Conclusion

The consensus guidance reinforces that responsible microbial management is critical to slowing AMR. Integrating alternative solutions, like Hydrofera Blue® and Cutimed® Sorbact® dressings into wound care protocols aids in effective infection prevention and biofilm control, aligning with AMS best practices while preserving antibiotic effectiveness for the future.

Sources:

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