

Clinical Case #1: 69-year-old male patient with diabetic foot ulcer.				
Study	Dressings	Cell types	Methods	Results
Wadström, 1985	DACC: hydrophobic dressing Comparator: N/A	<i>S. aureus</i> (planktonic)	- wound infection - wound healing in porcine wound model	- signs of healing seen in wounds treated with hydrophobic dressing on days 3 and 4 after dressing treatment - no infection seen by days 5 and 6 - conclusion that removal of <i>S. aureus</i> by hydrophobic dressing allowing wound healing to occur
Bowler, 1999	DACC: Sorbact Comparator: Aquacel; Algosteril; Kaltostat	<i>S. aureus</i> ; <i>P. aeruginosa</i> (all planktonic)	binding of bacteria to dressings	- DACC-coated dressing did sequester <i>S. aureus</i> but was the lowest amongst the dressings tested - dressings just as good as each other at sequestering <i>P. aeruginosa</i> - DACC-coated dressing showed good retention (60–80%) of both <i>S. aureus</i> and <i>P. aeruginosa</i>
Ljungh, 2006	DACC: Cutisorb Sorbact Comparator: N/A	<i>S. aureus</i> ; <i>P. aeruginosa</i> ; <i>C. albicans</i> ; <i>E. faecalis</i> ; <i>B. fragilis</i> ; <i>F. nucleatum</i> (all planktonic)	binding bacteria to DACC	- binding increased after 10 minutes - binding maximum of <i>P. aeruginosa</i> (10⁷ out of 10⁹) after 120 minutes - binding counts remained stable for <i>P. aeruginosa</i> for 20 hours - increased for <i>S. aureus</i> after 20 hours from 10⁶ to 10^{6.5} indicating that microbes multiply only slowly after binding - capacity to bind different microbes varies between microbes
Rosana, 2009	DACC: Cutimed Sorbact Comparator: conventional dressing	MRSA; <i>P. aeruginosa</i> (all planktonic)	binding bacteria to DACC	- binding capacity began at 30 seconds and reached a maximum at 2 hours - binding capacity for MRSA and <i>P. aeruginosa</i> more for DACC-coated dressing compared with conventional dressing
Hastings, 2009	DACC: Cutimed Sorbact Comparator: N/A	<i>C. difficile</i> ; <i>S. aureus</i> (all planktonic)	binding bacteria to DACC	<i>C. difficile</i> bacteria and spores adhere to DACC-coated dressing - binding seen within 10 minutes' exposure <i>S. aureus</i> binding also seen
Falk, 2012	DACC: Sorbact Comparator: N/A	human dermal fibroblasts (CCL-110)	- cell morphology - cell viability	- fibroblasts did not adhere easily to DACC-coated dressing - presence of DACC-coated dressing increased proliferation rate - significantly increased healing rate in scratch model
Brackman, 2013	DACC: Cutimed Sorbact Comparator: Aquacel Ag; Askina Calgitrol Ag; Atrauman Ag; Mepilex Ag; Silvercel; Tegaderm Alginate Ag; Bactigras; Braunol; Isobetadine; Algisite M; Allevyn nonadhesive; Kaltostat; Melgisorb; Seasorb Soft; Stella gauze; Tegaderm Alginate; Flamigel; Flaminal; Forte gel; Flaminal Hydro gel; Flamazine cream; Flamizol; Fucidine cream; L-Mesitran ointment; Prontosan wound gel	<i>S. aureus</i> ; <i>S. epidermidis</i> (all biofilm)	- inhibition of biofilm formation - effect on mature biofilm	- DACC-coated dressing (along with the majority of other dressings) inhibited <i>S. aureus</i> biofilm formation - DACC-coated dressing moderately eradicated mature biofilm but there was no reduction in CFU per biofilm
Geroult, 2014	DACC: Sorbact Comparator: untreated control	<i>M. ulcerans</i> ; <i>S. aureus</i> (all planktonic)	- hydrophobicity of microorganisms - binding of bacteria to DACC - microorganisms - binding of bacteria to DACC	enhanced binding of microorganisms to DACC compared with untreated control
Ronner, 2014	DACC: Sorbact Compress Comparator: N/A	<i>S. aureus</i> ; MRSA (all planktonic)	binding of bacteria to DACC	- microorganisms (including MRSA) bound to DACC-coated dressings - antibiotic resistant microorganisms bound equally well
Braunwarth, 2014	DACC: Cutimed Sorbact; Cutimed Siltec Sorbact Comparator: Biatain Ag; Biatain; Alione; gauze	MRSA; <i>P. aeruginosa</i> (all planktonic)	- hydrophobicity of dressing - bacteria eliminating effect	- hydrophobic dressings were able to bind bacteria onto their surface - hydrophobic effect of DACC has no boosting effect on binding of bacteria
Braunwarth, 2014	DACC: Cutimed Sorbact; Cutimed Siltec Sorbact Comparator: Biatain Ag; Biatain; Alione; gauze	<i>P. aeruginosa</i> (planktonic)	- antimicrobial activity - endotoxin concentration	- silver dressings show a lower release of endotoxins compared with other dressings tested 100–10,000x lower than gauze, 10,000x lower than Cutimed Sorbact, and 10–100x lower than Cutimed Siltect Sorbact “silver dressings bind larger proportion of endotoxin compared with DACC wound dressings”
Larkö, 2015	DACC: Sorbact absorption dressing Comparator: DryMax Extra; Sorbion Sachet S	<i>P. aeruginosa</i> (biofilm)	binding bacteria (biofilm) to dressings from 3D collagen-based tissue with biofilm grown on surface	- all dressings removed bacteria from the synthetic model - the dressings retained the bacteria
Cooper, 2016	DACC: Cutimed Sorbact Comparator: uncoated version	MRSA; <i>P. aeruginosa</i> (all biofilm)	binding of biofilm to DACC	- DACC-coated dressings enhanced binding of MRSA biofilm <i>P. aeruginosa</i> bound to dressings but not greater than binding to uncoated version
Husmark, 2022	DACC: Sorbact Compress Comparator: Acticoat Flex 3; Mepitel Ag; gauze bandage	<i>S. aureus</i> ; MRSA; <i>P. aeruginosa</i> ; <i>E. faecium</i> (VRE); <i>P. aeruginosa</i> (ESBL); <i>E. cloacae</i> (ESBL); <i>A. baumannii</i> (all planktonic)	binding of biofilm to DACC	- high antibacterial activity of DACC-coated dressing against WHO-prioritised bacteria by irreversible binding and inhibition of growth of bound bacteria - strong antibacterial activity at high concentrations - protein-augmented media did reduce antibacterial activity - pH did not affect antibacterial activity - DACC-coated dressing sustained antibacterial activity over reinfection steps
Morgner, 2022	DACC: Sorbact Compress Comparator: uncoated version	HaCaT keratinocytes; normal human dermal fibroblasts	- healing of cells in scratch model - inflammation - growth factor induction - fibroblast collagen synthesis	- DACC-coated dressing promoted cell viability - DACC-coated dressing supported wound healing progression - no cell attachment to DACC-coated version - slightly induced KGF, VEGF, GM-CSF - fibroblast stimulation of collagen
Ortega-Peña, 2022	DACC: Cutimed Sorbact Comparator: N/A	Microbial: oxacillin-sensitive <i>S. aureus</i> (planktonic) Eukaryotic: murine macrophage (RAW 264.7); murine fibroblasts (3T3)	- stimulation of eukaryotic cells with <i>S. aureus</i> (treated with DACC-coated dressing) supernatants - cytotoxicity assay - cytokine expression - MMP activity	- DACC-coated dressing bound 1.8–6.1% of all bacteria - dressing-treated cultures prevented biofilm formation in the dressing and limited formation outside of dressing - supernatants from DACC-treated <i>S. aureus</i> did not overly stimulate TNF-alpha or TGF-beta1 expression or increase MMP activity (bacterial integrity maintained)
Susilo, 2022	DACC: Sorbact Compress; Sorbact Foam Dressing Comparator: Mepitel Ag; UrgoTul Ag; Acticoat Flex 3; Acticoat Flex 7; Mepilex Ag	<i>P. aeruginosa</i> (planktonic)	- binding of purified endotoxin to DACC - binding of endotoxin released from bacteria - killing of bacteria	- DACC-coated dressings efficiently and rapidly binds purified and shed endotoxin - no zones of inhibition were observed for the two DACC-coated dressings
Meredith, 2023	DACC: Sorbact Compress Comparator: gauze; Aquacel Extra; Mepilex	MRSA; <i>P. aeruginosa</i> (ESBL) (planktonic & biofilm)	removal of planktonic and biofilm bacteria	- only 5% planktonic <i>P. aeruginosa</i> (ESBL) removed at 2, 4 or 6 hours by DACC-coated dressing - no detectable removal of planktonic MRSA by DACC-coated dressing - between 15–39% of <i>P. aeruginosa</i> (ESBL) in mature biofilm removed by DACC-coated dressing - no detectable MRSA removed by DACC-coated dressing - carboxymethylcellulose gelling fibre proved best for both planktonic and mature biofilm microorganisms in this model
Malone, 2024	DACC: Sorbact Comparator: Mepitel One	<i>P. aeruginosa</i> (planktonic)	- binding of bacteria to DACC - effect of media (saline, simulated wound fluid) on binding - viability	- DACC-coated dressings did not appear to boost effects on binding of bacteria as compared to other modern wound dressings - presence of protein in media reduced bacterial attachment for all dressings - presence of DACC-containing dressing reduced bacterial load in saline suspensions, no effect in protein-supplemented media - increase in attachment over time for both dressings