

Dressing Selection ... *at your fingertips*

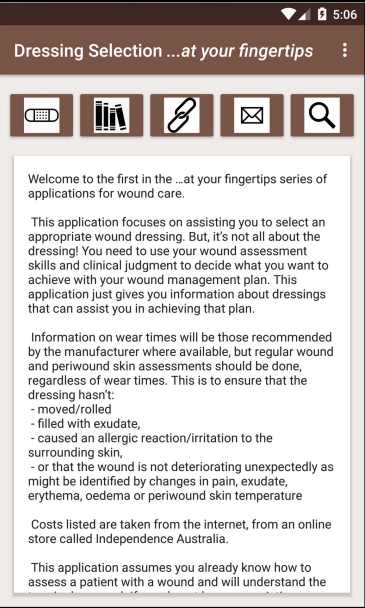
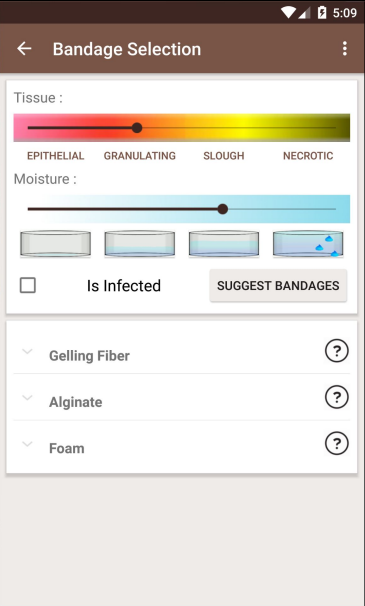
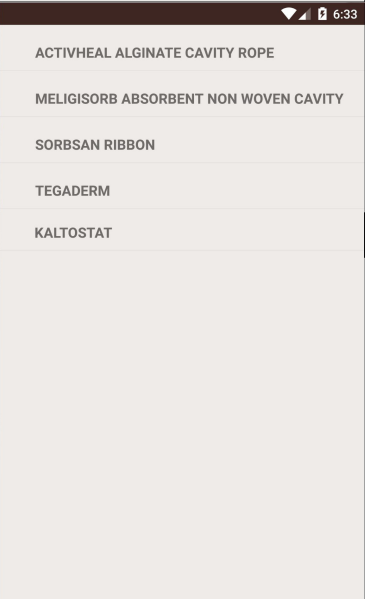
Good afternoon. My name is Kim Kaim and I am a Clinical Nurse in the Wound Management team at the Gold Coast. I acquired my passion for wound care as an undergraduate RN when I was fortunate enough to be able to spend a year and half with the Wound Healing Outreach Community Centre in Kelvin Grove. During my time there I began to see the tip of the iceberg; how complex wound healing is – and there is still so much for us to learn, how many people suffer with chronic wounds, and how little attention wound care receives. But I also saw how rewarding it was to help someone to heal, so I was hooked.

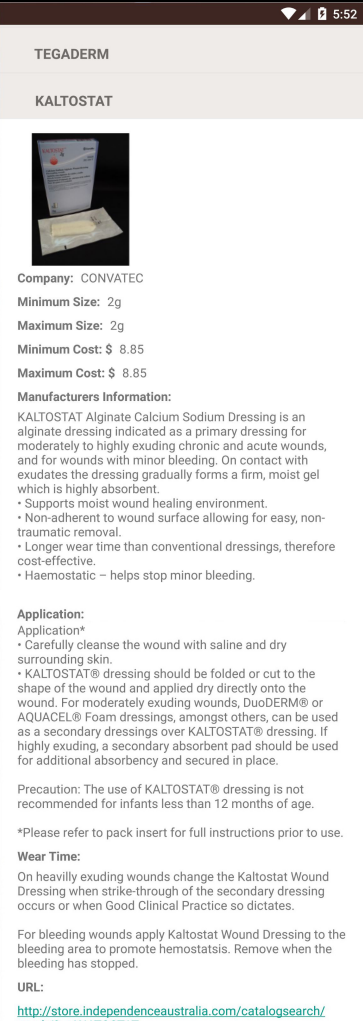
I then spent three and a half years at a rural hospital. While I was there I got to see how little of our current, evidenced based wound management principles make it out to this population. Support for wound care education and advice is hours away. So my new passion became getting wound care to the bush.

But I have not always been a Nurse. Prior to Nursing I spent 10 years working in IT and I have been a programmer (as a hobby) since I was in my teens. So I had an idea...

I am designing a series of mobile applications that provide advice on wound care to clinicians based on the best evidence currently available. But where to start? Wound assessment and management is incredibly complex. Ideally I would like to create a tool to lead clinicians from assessment and diagnosis through to setting clear healing objectives and wound care plans, grounded in research and evidence, and fast to use for clinicians of all knowledge levels⁽¹⁻⁴⁾. But in reality, I need to start with something more tenable. A review of wound assessment tools by Greatrex-White and Moxey⁽⁵⁾ indicated that there is a lack of guidance for treatment in currently available tools. This is reflected in mobile applications where for the Android platform there are 13 apps for measurement/documentation, 8 for education and journals, 2 app which offers guidelines and treatment algorithms and 8 for dressing selection. Of these 8, 6 are manufacturer-specific, one is only in German and is not free (see Table 1) and one is only on iPhone so I was not able to test it. As a personal observation I have also noticed that the majority of question I am asked are regarding wound dressings.

Therefore, the first of these applications has focused on dressing selection. This app does not replace clinical judgment, it does not address aetiology nor does it consider medical and psychosocial impacts on wound healing. It uses the principles of wound bed preparation and TIME to match wound requirements to dressings that can meet the need. The broad framework was adopted from existing NHS formularies and adapted with input from the Australian and New Zealand Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers⁽⁶⁾, The Royal Children's Hospital Melbourne wound care guidelines⁽⁷⁾ and the Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury⁽⁸⁾. This is shown in Table 2. The complete list of dressings, images and descriptions are from Independence Australia as well as manufacturer websites and marketing materials.

	<p>The app opens to a front page with an introduction and caveats. From here you can select to go to one of 5 pages:</p> <ul style="list-style-type: none"> • Educational support materials • Link to popular wound related resources • Email support and feedback • Search function • The dressing selection application
	<p>When you select the bandage selection application you are taken to a screen where you select tissue type, moisture level and presence/absence of infection. Once these are entered you press the suggest bandages button and you are given a list of the generic dressing types which would be suitable for the wound you have described. If you want to know more about the particular generic dressing type click on the [?].</p>
	<p>Once you have selected a generic dressing type, more specific type variants are displayed. For example, adhesive or not adhesive, with or without an additive, specifically shaped or for cavities (rope).</p>

 <p>TEGADERM</p> <p>KALTOSTAT</p> <p>Company: CONVATEC</p> <p>Minimum Size: 2g</p> <p>Maximum Size: 2g</p> <p>Minimum Cost: \$ 8.85</p> <p>Maximum Cost: \$ 8.85</p> <p>Manufacturers Information:</p> <p>KALTOSTAT Alginate Calcium Sodium Dressing is an alginate dressing indicated as a primary dressing for moderately to highly exuding chronic and acute wounds, and for wounds with minor bleeding. On contact with exudates the dressing gradually forms a firm, moist gel which is highly absorbent.</p> <ul style="list-style-type: none"> • Supports moist wound healing environment. • Non-adherent to wound surface allowing for easy, non-traumatic removal. • Longer wear time than conventional dressings, therefore cost-effective. • Haemostatic -- helps stop minor bleeding. <p>Application:</p> <p>Application*</p> <ul style="list-style-type: none"> • Carefully cleanse the wound with saline and dry surrounding skin. • KALTOSTAT® dressing should be folded or cut to the shape of the wound and applied dry directly onto the wound. For moderately exuding wounds, DuoDERM® or AQUACEL® Foam dressings, amongst others, can be used as a secondary dressings over KALTOSTAT® dressing. If highly exuding, a secondary absorbent pad should be used for additional absorbency and secured in place. <p>Precaution: The use of KALTOSTAT® dressing is not recommended for infants less than 12 months of age.</p> <p>*Please refer to pack insert for full instructions prior to use.</p> <p>Wear Time:</p> <p>On heavily exuding wounds change the Kaltostat Wound Dressing when strike-through of the secondary dressing occurs or when Good Clinical Practice so dictates.</p> <p>For bleeding wounds apply Kaltostat Wound Dressing to the bleeding area to promote hemostasis. Remove when the bleeding has stopped.</p> <p>URL:</p> <p>http://store.independenceaustralia.com/catalogsearch/result/?q=KALTOSTAT</p>	<p>Selecting one of these more specific variants will then provide you list of all name brands that fit that description. Each dressing can be selected to show minimum and maximum costs, minimum and maximum sizes, an image and description as provided by the manufacturer, the name of the manufacturer and a link to that product in the Independence Australia website.</p>
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Data in the tables will be updated regularly. Meetings were held with Independence Australia who are providing their data for the project. Each time they update their wound care products catalogue they will send a new data file to update the app, this is approximately once a year.

Currently the application has only been developed for the Android operating system. Android was chosen because Android still holds almost 80% of the total smartphone market share worldwide (see Figure 1). In Australia is it closer to half, sharing the market mainly with iOS. If the app is well received then an Apple iOS version will be considered.

If you have an Android phone and would like to help us test the beta version, go to Google Play and download it now (permission!). “Beta” means it’s not actually finished yet, but it’s close enough that it should perform all the functions expected of it, however we can’t guarantee it won’t crash your phone. You are trialing this at your own risk. Please use the in-app email to provide feedback and make suggestions or you can email me directly.

This dressing selection application and the *...at your fingertips* series of applications to come are free, and will remain free. They are being developed to make useful wound care information quick and easy to access, and to fill a gap in the current list of mobile



application (wound care) offerings.

Once feedback is incorporated into Wound Dressings ...*at your fingertips* and the final version is released, work will commence on the next phase: Wound Care Algorithms ...*at your fingertips*. Again, this will take quite a lot of time in researching guidelines and evidence. If you have a specialty within wound care and would like to offer your support to this project your assistance would be greatly appreciated. Also, as you can see by the images, I'm not a graphic designer. If you have artistic flair and think it would be fun to offer support on artistic direction, colour/font schemes or artwork by all means please help!

If you would like a copy of this talk with full tables and references please email me and I'll send you the pdf.

Thank you for your time, any questions?

Table 1

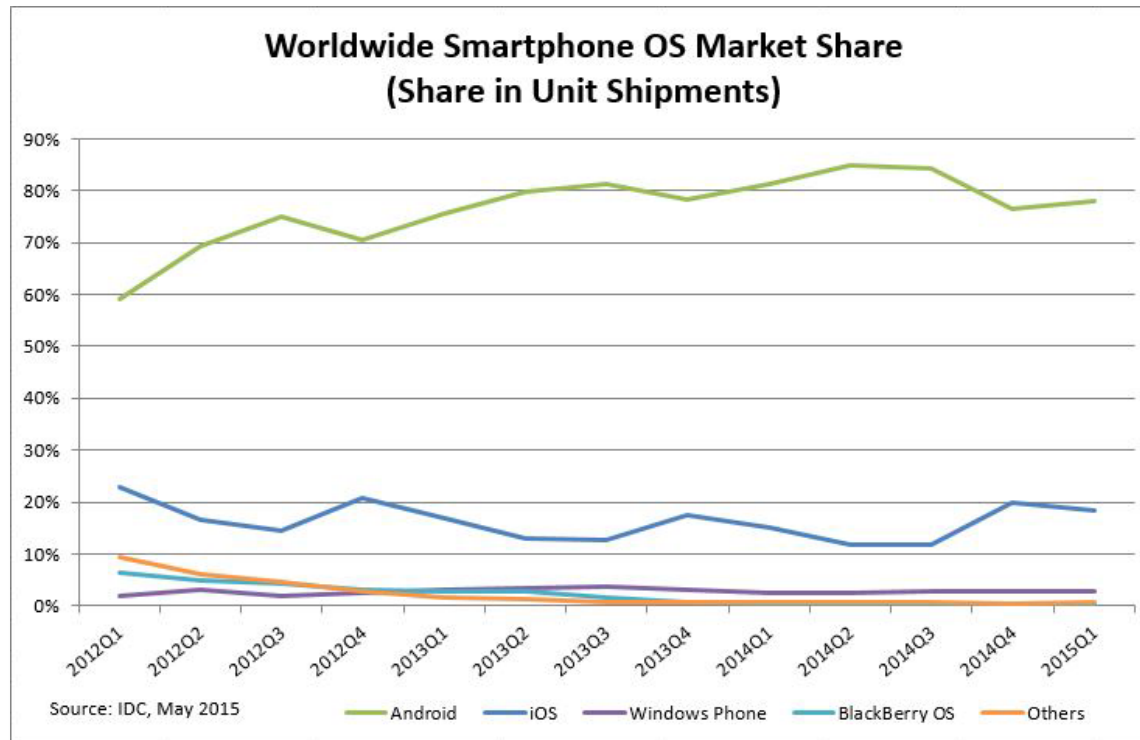
Focus of the App	Measurement/Documentation	Education/Journal	Guidelines/Algorithms/Treatment recommendations	Dressing Selection
Name (cost)	+WoundDesk (subscription)	Wound Central (free)	Wound doctor (\$)	Enluxtra (free - Manufacturer specific)
	MOWA (\$)	OMNIO (\$)	Evidence-Based Wound Care Guidelines and Fecal Ostomy Best Practice Mobile App (\$\$)	D+ Wound Solution (free - Manufacturer specific)
	Mobile Wound Care (subscription)	Journal of Wound Care (app free but articles \$)		NAWA (free - Manufacturer specific)
	WoundRight (free)	Wound Care Nursing - CWCN (\$)		WoundWatch (\$, not in English)
	Wound Analysis (free)	Wounds (free)		Dressing Selection App (free - Manufacturer specific)
	Abbott Wound Monitor (free, not in English)	OWM (free)		DRACO WundApp (free - Manufacturer specific, not in English)
	WoundEZ (subscription)	iOn Healing (free - Manufacturer specific)		Suprasorb Wound Navigator (free - Manufacturer specific)
	WoundMap Pump (free)	Wound Care Notebook (free, iOS only)		Wound Care (free - iOS only)
	WoundMatrix (\$?)			
	EyeSight (\$\$\$)			
	WoundZoom (\$\$\$)			
	WoundCam (\$)			
	WoundSmart (\$)			
Summary	Several options, fee based services do appear more comprehensive. +WoundDesk is in Beta but looks very promising.	Very well covered. Wound central has a large collection of brief, informative pieces including images and videos.	Only one offering, not free. App indicates it provides treatment algorithms, however this was not tested.	The only app that has the potential to offer unbiased dressing selection options is in German.

Table 2

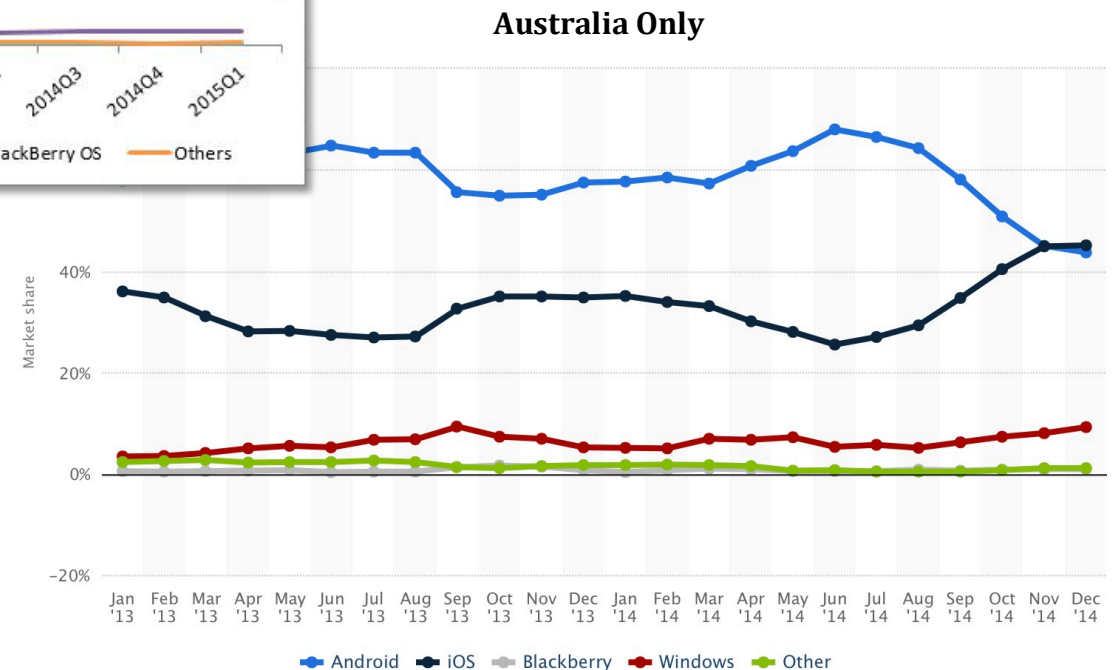
	None to Low	Low to Moderate	Moderate to High	High to Very High
Epithelial	Film Interface Simple dressing	Foam Hydrocolloid	High Absorbent	High Absorbent
	Antimicrobial/interface Antimicrobial/simple	Antimicrobial/interface Antimicrobial/Foam	Medicated bandage	Medicated bandage
Granulating	Film Hydrogel	Interface Foam Hydrocolloid	Alginate Gelling Fiber Foam	High Absorbent
	Antimicrobial/Hydrogel	Antimicrobial /Foam Antimicrobial/interface Antimicrobial/Hydrocolloid	Cadexomer-Iodine Antimicrobial/Alginate Antimicrobial/Gelling Fiber Antimicrobial/Foam	Antimicrobial/interface Antimicrobial/High Absorbent
Slough	Hydrogel	Foam	Alginate Gelling Fiber Foam	High Absorbent
	Cadexomer-Iodine Antimicrobial/Hydrogel Monosaccharide	Antimicrobial/Hydrogel Cadexomer-Iodine Antimicrobial/Foam Hypertonic Saline Monosaccharide	Antimicrobial/Alginate Cadexomer-Iodine Antimicrobial/Gelling Fiber Antimicrobial/Foam	Antimicrobial/interface Antimicrobial/High Absorbent
Necrotic	Hydrogel Isotonic	Hydrocolloid	Foam Alginate	High Absorbent
	Antimicrobial/Isotonic Antimicrobial/Hydrogel Monosaccharide	Cadexomer-Iodine Monosaccharide	Cadexomer-Iodine Antimicrobial/Foam Antimicrobial/Alginate	Antimicrobial/interface Antimicrobial/High Absorbent

This table has been modified from those used in the NHS

Figure 1



International Data Corporation
(<http://www.idc.com/prodserv/smartphone-os-market-share.jsp>)



Statista Statistics Portal (<http://www.statista.com/statistics/245191/market-share-of-mobile-operating-systems-for-smartphone-sales-in-australia/>)

References

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8. The Australian Wound Management Association (AWMA) Pan Pacific Guideline Development Steering Committee, *Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury*. 2012, Osborne Park, WA: Cambridge Media.