

# Regional anaesthesia at the frontier. An evidence free talk!

- Introducing regional anaesthesia to theatres across WACHS
- Tips to making your blocks quick and efficient



# 2008 What I did...

- US sciatic nerve
- US course 2 day “Heartweb”
- 0.8 FTE Public
- Purchased an US<sub>Mturbo</sub>
- Up skilling visit
- 40 blocks a month
- Purchased 34 US's

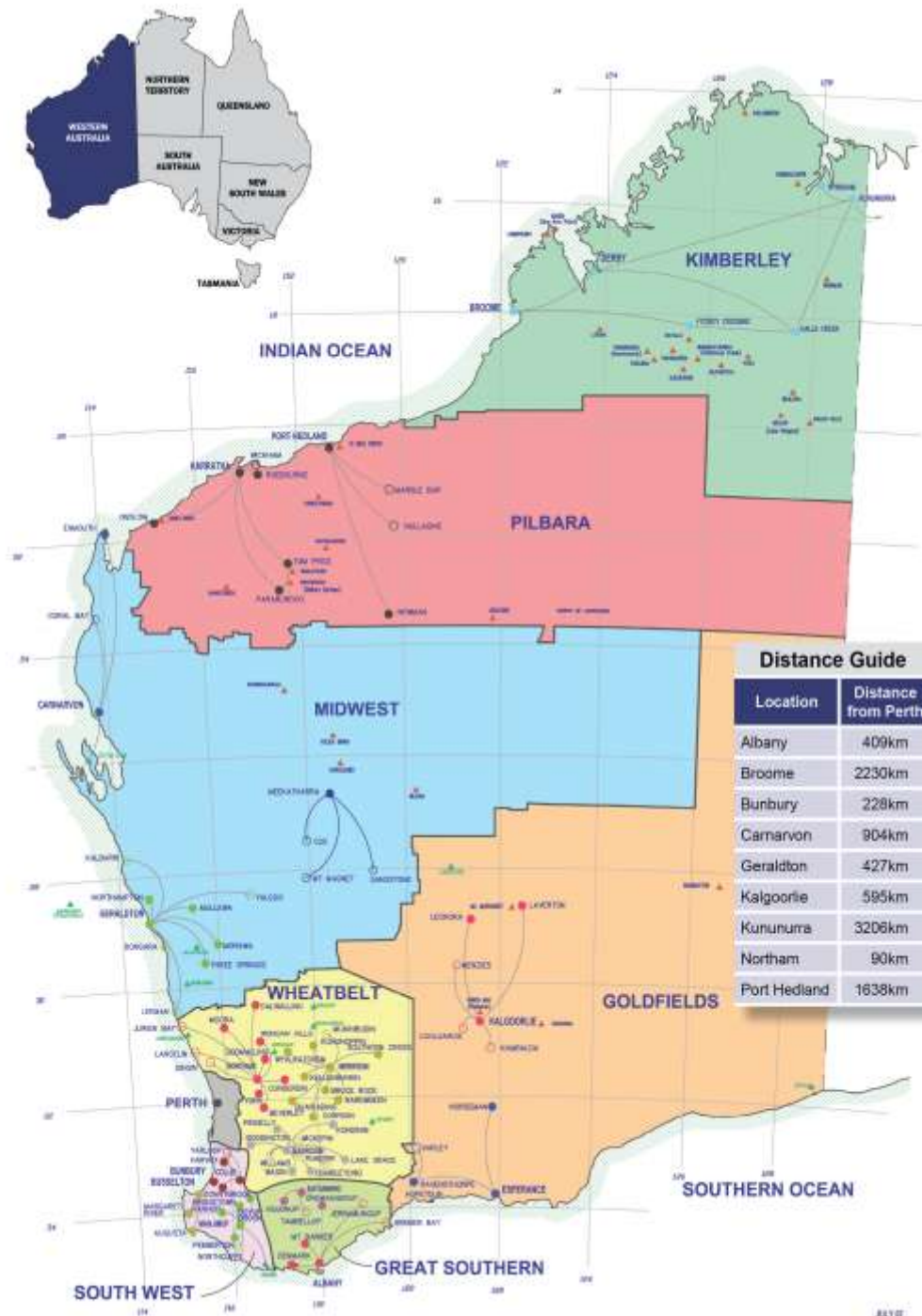


**Lone Ranger:  
Regionals at the  
frontier**

West Australian  
Country Health  
Service  
experience

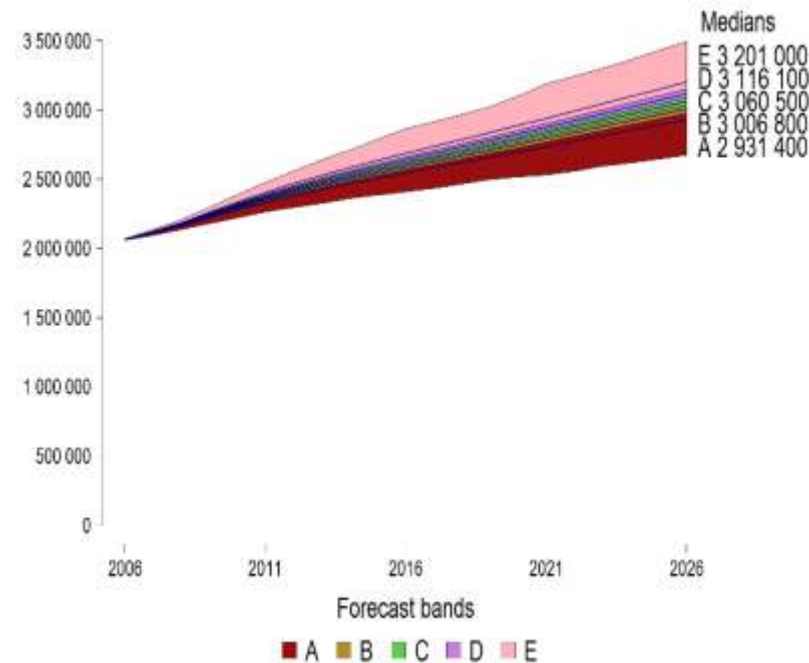
20 operative sites  
outside Perth  
theatres/anaesth  
etics

- Albany
- Broome
- Bunbury (7800 theatre cases per year)
- Busselton
- Derby
- Geraldton
- Kalgoorlie
- Karratha
- Kununurra
- Margaret River
- Northam
- Port Hedland



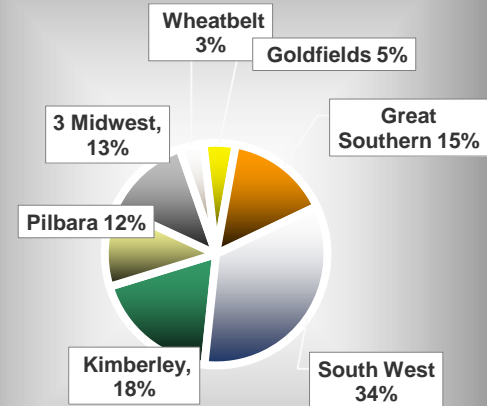
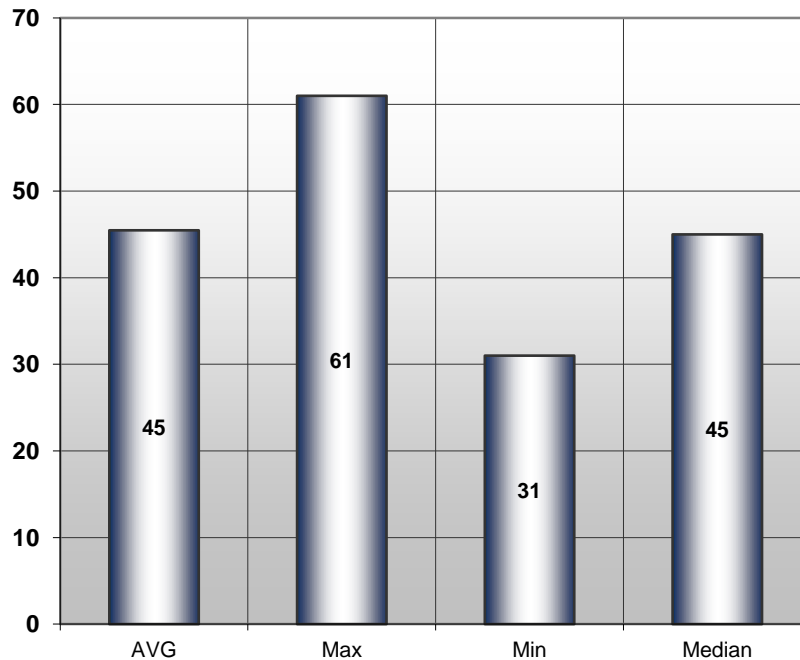
## WA Country Health Service

- 2.55 million km<sup>2</sup>
- 10.1% Aboriginal
- 14 consultant anaesthetist
- 110 GP Anaesthetist GPAs
- FIFO consultants and GPA



# Country GP Anaesthetists

Age Analysis based on responses received



Regions GP Anaesthetists predominantly work



# Steps to providing regionals to country WA : starting off...

- Rural areas are often under equipped and support staff are often under skilled
- Visit area with US & identify people with interest in up skilling
- Coerce (insist) they to go on a weekend course and visit “block specialist”
- Or support a local course in the region
  - ARACIS, HeartWeb ...

# Selling it to management: Getting the right equipment...

## RISK REDUCTION MODEL

- Aggressively used serious clinical incidents to demonstrate need of US
- Anaesthetic for abscess on hand
- Can't intubate/ can't ventilated scenario
- Theatre team upset/ Dr pulled out of anaesthesia
- Undiagnosed breech



# Funding sources 2010-2011

- Purchased 34 US's
  - 4 x S nerve
  - 18 x M turbo
- Funding
  - WACHS
  - Telethon charity
  - Health area funding





# Non Specialist Anaesthetist Credentialing Summary

## Non Specialist Anaesthetist Credentialing Summary



Where and when did you complete your initial training in anaesthesia?

What was the duration of this training in anaesthetics?

Case Category	Number of Cases Calendar year 20__				
General Anaesthesia	<input type="text"/>				
LMA's	<input type="text"/>				
Intubations	<input type="text"/>				
Sedation	<input type="text"/>				
Emergency / non elective anaesthesia (all types)	<input type="text"/>				
Spinals	<table border="1"> <tr> <td>Non obstetric</td> <td><input type="text"/></td> </tr> <tr> <td>Obstetric</td> <td><input type="text"/></td> </tr> </table>	Non obstetric	<input type="text"/>	Obstetric	<input type="text"/>
Non obstetric	<input type="text"/>				
Obstetric	<input type="text"/>				
Epidurals	<table border="1"> <tr> <td>Non obstetric</td> <td><input type="text"/></td> </tr> <tr> <td>Obstetric</td> <td><input type="text"/></td> </tr> </table>	Non obstetric	<input type="text"/>	Obstetric	<input type="text"/>
Non obstetric	<input type="text"/>				
Obstetric	<input type="text"/>				
Number of Children 4- 14	<input type="text"/>				
Number of Children less than 4 years or less than 15KG	<input type="text"/>				
Number of ASA 3 or above	<input type="text"/>				
<b>Total number of cases</b>	<input type="text"/>				

Regional Nerve Blocks	Number of Cases Calendar year 20__			
Brachial Plexus	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Axillary	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Median	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Radial	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Ulna	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Lumbar	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Femoral	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Sciatic	<table border="1"> <tr> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> <td>US <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>
Yes <input type="checkbox"/>	No <input type="checkbox"/>	US <input type="checkbox"/>		
Other (Please specify) <input type="text"/>	<input type="text"/>			
<b>Total number of cases</b>	<input type="text"/>			

US Guided Nerve Blocks	
Do you feel comfortable and confident with ultrasound guided	Yes <input type="checkbox"/> No <input type="checkbox"/>

## Non Specialist Anaesthetist Credentialing Summary

nerve blocks?

What training have you had in ultrasound guided nerve blocks?

What courses have you attended?

Have you had individual supervision/ training by a Consultant Anaesthetist? (If YES please specify date/ duration and Consultant's name)

CME / Up skilling activities		
	Dates	Site & details
Supervised Clinical Attachments	<input type="text"/>	<input type="text"/>
Interactive Workshops eg	<input type="text"/>	<input type="text"/>
Conferences	<input type="text"/>	<input type="text"/>
Other (eg research, online learning)	<input type="text"/>	<input type="text"/>
Other Procedure for which credentialing is sought (please specify) <input type="text"/>		

I  (Doctors Name)  
confirm the above details are true and accurate  
Signature :  Date:

REVIEWED BY:

SIGNATURE :  Date:

Guideline: <100 cases per year, up skilling with Consultant Anaesthetist will be recommended.

Comments/ Recommendation:

Duration of credentialing:

1 year ☐ 2 Year ☐ 3 Year ☐

# Pat's Top Tips: Summary 1

- Know your anatomy
  - Sensory nerves to skin bones muscle
- Make time/ PPPPP
- Train nurses/surgeon
- Ergonomics
- Get the right Kit
  - US's & Echogenic Needles



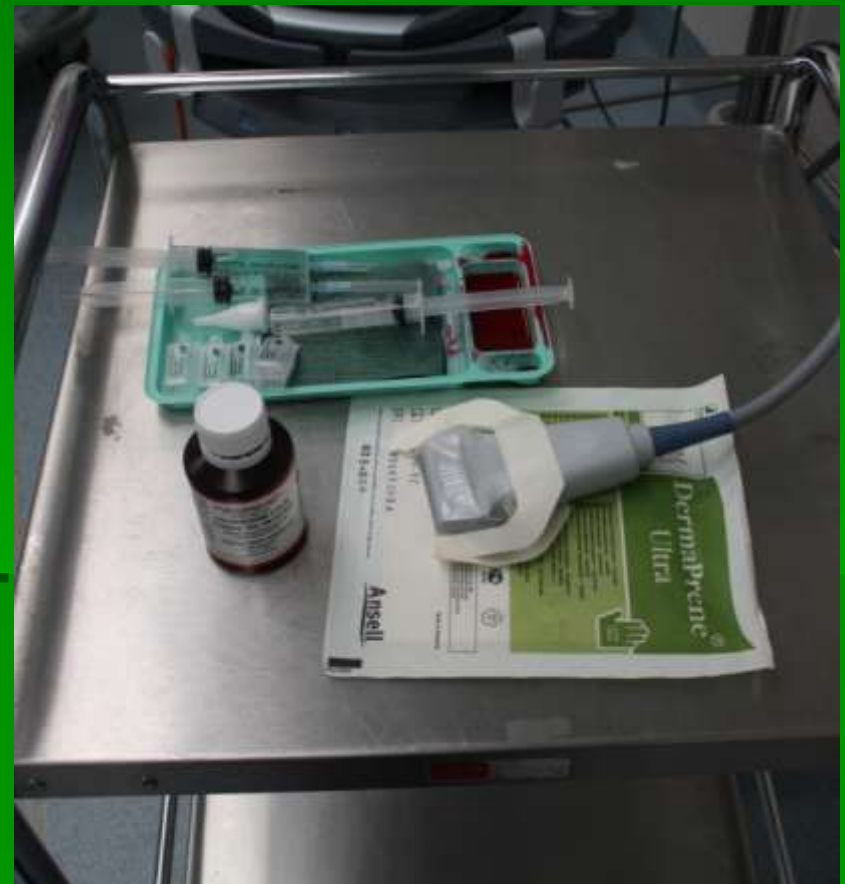
# Top tips summary 2

- Go on a course
- Anaesthetic visit to experienced consultant
  - Get the mobile number of a “local expert” e.g. SCGH
- Use the available resources
  - [Neuraxiom](#), NYSORA
- Don't forget the PNS
- Surgeon preferences vs. block fixation



# Individual tips: If you fail to plan you plan to fail...

- Get your kit ready before the patient enters theatre



# A nice bit of kit...





# TIPS: Ergonomics



# **Keep it simple**

## **Choose your block /Choose your patient.**

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- Brachial Plexus
  - Interscalene
  - Supraclavicular
- Axillary and musculocutaneous
- Forearm blocks
  - median radial ulnar
- Femoral
- Sciatic
- ??TAP Blocks

# TIPs continued

- Follow up complications
- Pain specialist
- Neurologist
- Early MRI

# PLEXUS Audit

## Anaesthetist Details (Consultant performing or supervising procedure)

<input type="radio"/> Watts	<input type="radio"/> Myles	<input type="radio"/> Truong	<input type="radio"/> Hennessy	<input type="radio"/> Majedi	<input type="radio"/> Lennon	<input type="radio"/> Smith	<input type="radio"/> Lim	<input type="radio"/> Hocking
<input type="radio"/> Lamb	<input type="radio"/> Lee. A	<input type="radio"/> Weightman	<input type="radio"/> Sharma	<input type="radio"/> Shrivastava	<input type="radio"/> Kwei	<input type="radio"/> Douglass	<input type="radio"/> Murphy	<input type="radio"/> Aneja
<input type="radio"/> Holldack	<input type="radio"/> Graham	<input type="radio"/> Schmidt	<input type="radio"/> Thackray	<input type="radio"/> Ma	<input type="radio"/> Kurowski	<input type="radio"/> Law	<input type="radio"/> Myles Suz	<input type="radio"/> Josephson
<input type="radio"/> Sadleir	<input type="radio"/> Ongley	<input type="radio"/> Lawther	<input type="radio"/> Mitchell	<input type="radio"/> Brbich	<input type="radio"/> Hor	<input type="radio"/> Jarvi	<input type="radio"/> OTHER	<input type="text"/>

Grade ☒ Consultant ☐ Fellow ☐ ATY ☐ BTY

Trainee Name

## Patient Details

Unique ID

Gender ☒ M ☐ F

Age

Patient Height (cm)

Patient Weight (kg)

BMI

ASA Score ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Emergency ☐

After Hours ☒ No ☐ Yes

Diabetes ☒ No ☐ Yes

Chronic Analgesic Use

Neurological Disease

## Operation Details

Operative Region

Specific Procedure/Operation

Tourniquet ☒ No ☐ Yes

Procedure Date   dd/mm/yyyy

Hospital ☒ SCGH ☐ HPH ☐ MH ☐ SJOGS ☐ SJOGM ☐ Bethesda ☐ OPH ☐ Other

# Caring for your scanner

- A sturdy trolley
- Ultrasound probes stored securely.
- Nurse/ technician education
- Arrange when you purchase





# Situation now



- US's, needles in place at most regional sites
- Effective and safe regional anaesthesia and vascular access
- If it sounds too good to be true it probably is...

KALGOORLIE	KG15-972THE-L60	0 THEATRE	SONOSITE	SCANNER ULTRASONIC	MICROMAXX
KALGOORLIE	KG15-976MAT-K94	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
MEEKATHARRA	MK15-976WD--B05	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
ALBANY	AL15-976WD--J33	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
ESPERANCE	ES15-976MAT-D43	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	S-WOMENS HEALTH
BROOME	BR15-976CAS-E49	0 CASUALTY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
DERBY	DE15-976MAT-D54	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	SONOSITE 180
DERBY	DE15-976WD--F45	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
FITZROY CROSSING	FZ15-976COMMA56	0 COMMUNITY HEALTH	SONOSITE	SCANNER ULTRASONIC	SONOSITE 180
HALLS CREEK	HA15-976COM-A46	0 COMMUNITY HEALTH	SONOSITE	SCANNER ULTRASONIC	SONOSITE 180
KUNUNURRA	KN15-976CAS-C68	0 CASUALTY	SONOSITE	SCANNER ULTRASONIC	SONOSITE 180
KUNUNURRA	KN15-976WD--D49	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
CARNARVON	CA15-976MAT-D26	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
GERALDTON	GE15-976MAT-H12	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	180 PLUS
GERALDTON	GE15-976MAT-J35	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
WILUNA	WL15-976WD--A30	0 WARD	SONOSITE	SCANNER ULTRASONIC	180
NICKOL BAY	NK15-976CAS-C86	0 CASUALTY	SONOSITE	SCANNER ULTRASONIC	180 PLUS
NICKOL BAY	NK15-976MAT-D79	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	S-WOMENS HEALTH
PORT HEDLAND	PH15-976MAT-H01	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
PORT HEDLAND	PH15-976OUT-G22	0 OUTPATIENTS	SONOSITE	SCANNER ULTRASONIC	MICROMAXX
BRIDGETOWN	BG15-976WD--B64	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
BUNBURY	BY15-976A&E-K28	0 A&E	SONOSITE	SCANNER ULTRASONIC	TITAN PU6501-02
BUNBURY	BY15-976MAT-N83	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
BUNBURY	BY15-976THE-K43	0 THEATRE	SONOSITE	SCANNER ULTRASONIC	TITAN
BUNBURY	BY15-976WD--P22	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
BUNBURY	BY15-976WD--P24	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
BUSSELTON	BS15-976WD--E44	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
COLLIE	CO15-976WD--C96	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
MARGARET RIVER	MR15-976WD--B90	0 WARD	SONOSITE	SCANNER ULTRASONIC	S SERIES
WARREN	WR15-976MAT-C29	0 MATERNITY	SONOSITE	SCANNER ULTRASONIC	S-WOMENS HEALTH
BODDINGTON	BO15-976WD--A71	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO
NARROGIN	NA15-976CAS-D99	0 CASUALTY	SONOSITE	SCANNER ULTRASONIC	M-TURBO
NORTHAM	NT15-976WD--D97	0 WARD	SONOSITE	SCANNER ULTRASONIC	M-TURBO