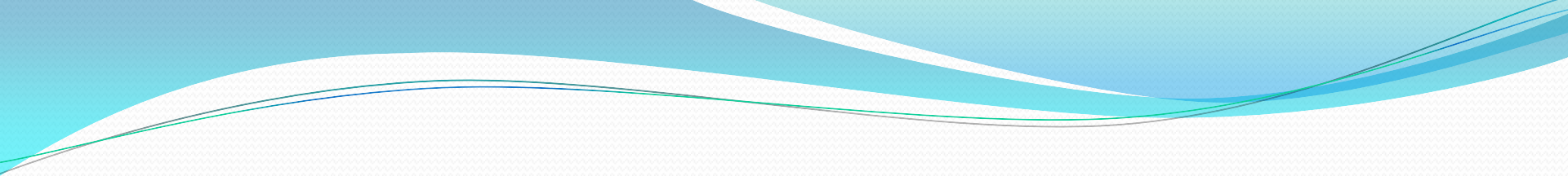


LOCAL ANAESTHESIA

RICK ACLAND

MY EXPERIENCE

- THE NOVELTY OF A NEW BLOCK
- DENTAL DILEMMA
- THE THRILL OF A SUCCESSFUL BLOCK
- MY FIRST CONVULSION

- 
- The Art of Administration
'Avoid infection'

Needle

Non-Pyrogenic



WS10070104 NT01808

REF 301808

25G 1 1/2
(0.5x38mm)

BD PrecisionGlide™ Needle

25G 1 1/2 (0.5mm x 38mm)
Single Use Only • Non-Pyrogenic
Sterile if Package Intact
Made in Singapore ©2004 BD



WS10070104 NT01808

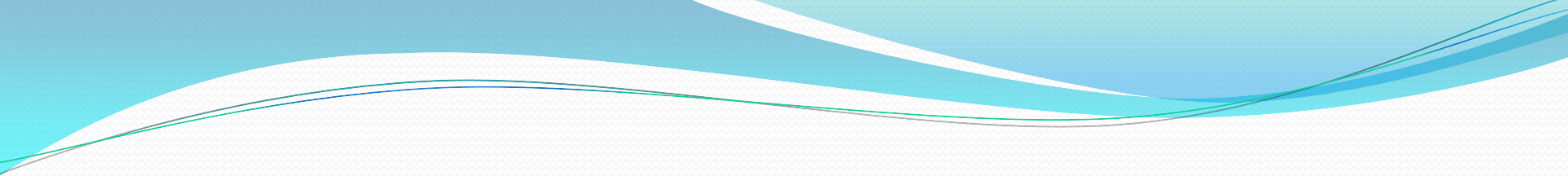
REF 301808

2011-11 2006-12 LOT 6324326 **STERILE EO**

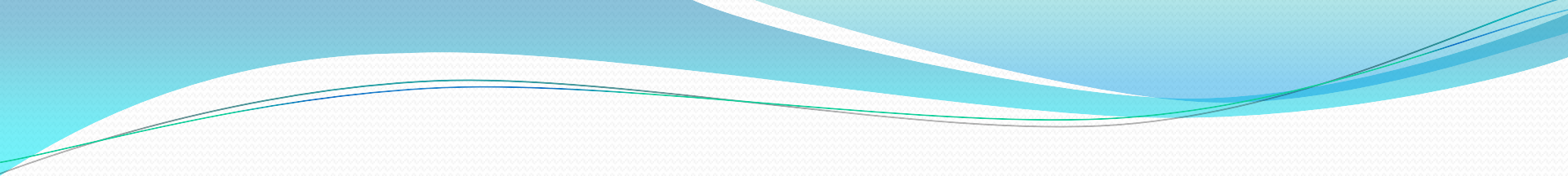
Local Anaesthetics	pKa	%unionized at pH 7.4	Lipid Solubility (Octagonal buffer)	Relative Potency	% Protein Binding	Duration of action	Toxic Plasma Conc (µg/mL)	Max dose (mg/kg)
Amides								
Lignocaine	7.9	25	366	2	64	60-120	>5	4.5/7
Prilocaine	7.9	24	129	2	55	60-120	>5	8
Bupivacaine	8.1	17	3420	8	95	240-480	>3	3
Levobupivacaine	8.1	17	3420	8	97	240-480		3
Ropivacaine	8.1	17	775	8	94	240-480	>4	3
Esters								
Cocaine	8.7			2		45-60		3
Procaine	8.9	3	100	1	6	45-60		12
		VD(SS)	Clearance	T1/2				
		(L/kg)	(L/kg/hr)	(hr)	Relative potency for CNS Toxicity	CVS:CNS toxicity ratio		
Lignocaine		1.3	0.85	1.6	1	7.1		
Prilocaine		2.7	2.03	1.6	1.2	3.1		
Bupivacaine		1.02	0.41	3.5	4	2		
Levobupivacaine		0.78	0.32	2.6	2.9	2		
Ropivacaine		0.84	0.63	1.9	2.9	2.2		
Esters								
Cocaine								
Procaine		0.93	5.62	0.14	0.3	3.7		

Xylocaine® 1%
lignocaine injection
50 mg in 5 mL





1% (10mg/ml) Lignocaine



PHARMACODYNAMICS

‘The Block’

voltage gated ion channels
in peripheral nerves (size matters)

PHARMACOKINETICS

Why not a prolonged,
sensory only block?

PRESCRIPTION ONLY MEDICINE

Marcain® 0.25%

Bupivacaine Injection BP

Each 20 mL Polyamp DuoFit® ampoule contains:

Bupivacaine Hydrochloride Anhydrous 50 mg
Sodium Chloride 160 mg
Water for Injections to 20 mL
Sodium Hydroxide for pH adjustment

Not for Intravenous Infusion

Sterile AstraZeneca Theatre Pack™

Sterile, Isotonic Local Anaesthetic for Injection

5 x 20 mL Polyamp DuoFit® ampoules



13434

AstraZeneca 

PRESCRIPTION ONLY MEDICINE

KEEP OUT OF REACH OF CHILDREN

ropivacaine hydrochloride injection
 **Naropin®**

0.2%

Each 20 mL Polyamp DuoFit® ampoule contains:

Ropivacaine hydrochloride 40 mg
Sodium chloride 172 mg
Water for Injections to 20 mL
Hydrochloric acid or Sodium hydroxide for pH adjustment

Not for Intravenous Infusion

Sterile AstraZeneca Theatre Pack™



LA dosage

$2\% = 20\text{mg/ml}$

- 20ml of 2% Lignocaine = 400mg

$0.5\% = 5\text{mg/ml}$

- 30ml of 0.5% Bupivacaine = 150mg

(adrenaline 1:1000=1mg, 1:100,000=0.01mg)

TOXICITY

- CENTRAL NERVOUS SYSTEM
- CARDIOVASCULAR SYSTEM

How to decrease your chance of LA toxicity

Be prepared

Know your maximum dose

- Lignocaine 7mg/kg with adrenaline
- Lignocaine 4mg/kg
- Bupivacaine 2mg/kg with or without adrenaline
- Ropivacaine 3mg/kg with or without adrenaline

Know where your needle is

Interesting effects

- INTRAVENOUS LIGNOCAINE
- INTRANASAL LIGNOCAINE

COST

1% lignocaine 5mls: \$35/50

20mls: \$20/5

2% lignocaine 5mls: \$23/50

20mls: \$15/5

EMLA 30 gm \$45

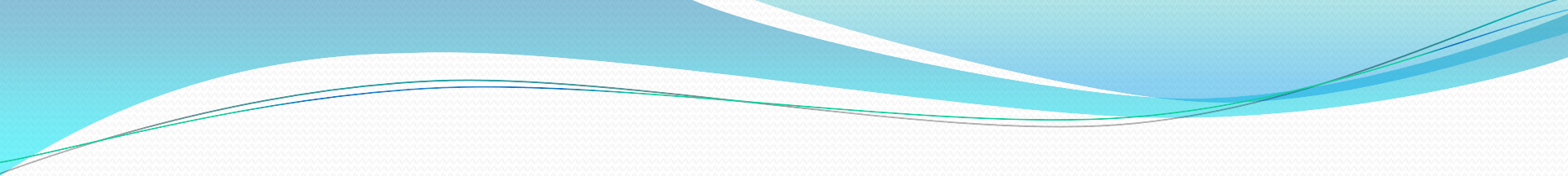
5 gm \$45/5

GP BLOCKS

- INFILTRATION
- TARGETED NERVES
- FRACTURE BLOCKS
- 'NO GO' ZONES
- PROLOTHERAPY

TOPICALS

- EMLA cream
- LIGNOCAINE 2% gel/viscus
- VOLTAREN gel
- ASPIRIN/CHLOROFORM soln
- SLACK PANGPON (MONGOOSE FANG) balm



POLITICS OF Local ANAESTHESIA

- The role of the 21st Century Specialist Anaesthetist
- The role of GP Anaesthetists
- Conscious sedation proceduralists