


## HOW TO FILL UP THE REGIONAL ANAESTHESIA REGISTRY FORM MANUAL & ONLINE:

(Dr Beh ZY, Dr Amiruddin NMK and Dr Azrin MA)

 <b>REGIONAL ANAESTHESIA DATA COLLECTION FORM</b> MINISTRY OF HEALTH MALAYSIA <small>HKL/BIUS/REGIONAL/02</small>		Record No <input style="width: 100px;" type="text"/>																																																														
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<b>BLOCK PROCEDURE NOTE (Part 1)</b>																																																																
Procedure - Start time ( : ) End time ( : ) Premedication: IV Midazolam _____ mg, IV Fentanyl _____ mcg Other drugs: _____																																																																
1 <sup>st</sup> block _____ Technique: <input type="checkbox"/> Single injection <input type="checkbox"/> Catheter (anchored at skin _____ cm, skin to space _____ cm), comment _____		Catheter infusion rate _____ ml/hr Drug (s) _____																																																														
Monitoring device: • Ultrasound (US) <input type="checkbox"/> • Nerve stimulator (NS) <input type="checkbox"/> • Dual Guidance (NS + US) <input type="checkbox"/> • Landmark <input type="checkbox"/> • Triple monitoring (NS+US+injection pressure) <input type="checkbox"/>		Transducer: <input type="checkbox"/> Linear <input type="checkbox"/> Curved Needling: <input type="checkbox"/> In-plane <input type="checkbox"/> Out of plane																																																														
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**BLOCK PROCEDURE NOTE (Part 2)** \*If there's change in monitoring device, please specify accordinglyFor 2<sup>nd</sup> block \_\_\_\_\_Technique: ☐ Single injection☐ Catheter (anchored at skin \_\_\_\_\_ cm, skin to space \_\_\_\_\_ cm),  
comment \_\_\_\_\_Catheter infusion rate \_\_\_\_\_ ml/hr  
Drug (s) \_\_\_\_\_

Monitoring device:

- Ultrasound (US) ☐
- Nerve stimulator (NS) ☐
- Dual Guidance (NS + US) ☐
- Landmark ☐
- Triple monitoring (NS+US+injection pressure) ☐

Transducer: ☐ Linear ☐ CurvedNeedling: ☐ In-plane ☐ Out of plane

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
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Needle: \_\_\_\_\_

For 3<sup>rd</sup> block \_\_\_\_\_

Monitoring device:

- Ultrasound (US) ☐
- Nerve stimulator (NS) ☐
- Dual Guidance (NS + US) ☐
- Landmark ☐
- Triple monitoring (NS+US+injection pressure) ☐

Transducer: ☐ Linear ☐ CurvedNeedling: ☐ In-plane ☐ Out of plane

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
		Poor	Lignocaine			

Needle: \_\_\_\_\_

For 4<sup>th</sup> block \_\_\_\_\_

Monitoring device:

- Ultrasound (US) ☐
- Nerve stimulator (NS) ☐
- Dual Guidance (NS + US) ☐
- Landmark ☐
- Triple monitoring (NS+US+injection pressure) ☐

Transducer: ☐ Linear ☐ CurvedNeedling: ☐ In-plane ☐ Out of plane

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
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Needle: \_\_\_\_\_

**BLOCK PROCEDURE NOTE (Part 3)**Events: ☐ Uneventful ☐ Eventful (refer below)

Others (if not specified as below) \_\_\_\_\_

Bleeding / vascular puncture	
Technical difficulty	
Intraneural injection	
Poor needle visualization	
Anatomical variation	
Inadequate spread	
Failed stimulation (if NS used)	
Horner's syndrome	
Phrenic nerve involvement	
Epidural spread	
Pneumothorax	
LA toxicity: Prodromal sx / CVS / CNS	

Blood aspirated: Yes ☐ No ☐IV test using Adrenaline (if used): positive ☐ negative ☐Pain on injection: Yes ☐ No ☐Resistance on injection? Normal (<15psi) ☐ High (>15psi) ☐

BLOCK SUCCESS

- Adequate ☐
- Partial (require supplements) ☐
- Failed ☐
- Aborted ☐
- NA (if patient under GA / SAB) ☐

SUPPLEMENTS IF REQUIRED

- IV analgesics ☐
- Additional blocks ☐
- LA by surgeon ☐

If failed block, any conversion to: GA ☐ SAB ☐INTRAOPERATIVE ANALGESIA IF USED  
\_\_\_\_\_

NAME \_\_\_\_\_ RN \_\_\_\_\_ Record No  

**POST OP EVALUATION** (Please correlate with patient feedback form/chart) *For APS to complete*

Regular analgesics: ☐ Given ( oral, parenteral, combined ), specify \_\_\_\_\_  
☐ Not given

**Time of rescue** (time at which patient starts to feel pain score > 4 after surgery): \_\_\_\_\_  
 (if patient on regular analgesics post op and no point in time pain score > 4: no time of rescue)

**Rescue analgesia** (additional analgesia required on top of regular analgesics when patient has breakthrough pain, score>4 after surgery): if required, specify type and time \_\_\_\_\_

Return of motor power (>3/5) – not applicable in blocks like PVB / TAP / PECS / SPB / QLB / SCPB

Time: _____	< 6hours	
	6 – 12 hours	
	12 – 18 hours	
	18 – 24 hours	
	> 24hours	

**POST OP COMPLICATIONS** (to be filled up after patient is discharged from APS review)

**Complications in the ward**

No complications	
Persistent numbness	
Persistent weakness	
LA toxicity: Prodromal sx / CVS / CNS	
Infection	
Failed catheter	

Others (if not listed below)

Please specify \_\_\_\_\_

Deficit persist despite anticipated average time for block regression has passed (>24hours, not on infusion)

Please elaborate: \_\_\_\_\_

- Catheter dislodged ☐
- Catheter leaked ☐
- Pain not controlled on catheter infusion ☐

**Complications after 1 month**

No complications	
Persistent numbness	
Persistent weakness	
Infection	
Not contactable	

Others (if not listed below)

Please specify \_\_\_\_\_

Referral to APS / Anaesthetic clinic for complications detected: YES ☐ NO ☐

Treatment rendered:

- ☐ • Supportive (include follow up, counselling, or reassurance without intervention)
- ☐ • Intervention (include medical therapy, referrals, drainage of pneumothorax, non-invasive or invasive ventilation)

Level of satisfaction: Excellent ☐ Satisfied ☐ Poor ☐

**DAILY EVALUATION CORNER**

HKL/BIUS/REGIONAL/02

For APS to complete

DATE						
TIME						
SEEN BY						
TECHNIQUE (*use abbreviation)						
PAIN SCORE	REST					
	MOVEMENT					
ANALGESICS						
CATHETER INFUSION	RATE					
	CATHETER SITE CLEAN, DRESSING INTACT Any LEAK? SWOLLEN? INFLAMED? BLEEDING?					
	MARKING (cm)					
NEUROLOGICAL RECOVERY	SENSORY (normal / numbness / no sensation)					
	MOTOR (power / Bromage score)					
REMARKS / INTERVENTION						

DATE						
TIME						
SEEN BY						
TECHNIQUE (*use abbreviation)						
PAIN SCORE	REST					
	MOVEMENT					
ANALGESICS						
CATHETER INFUSION	RATE					
	CATHETER SITE CLEAN, DRESSING INTACT Any LEAK? SWOLLEN? INFLAMED? BLEEDING?					
	MARKING (cm)					
NEUROLOGICAL RECOVERY	SENSORY (normal / numbness / no sensation)					
	MOTOR (power / Bromage score)					
REMARKS / INTERVENTION						

Every hospital involved will be given a username and password (exclusive) for its member to key in the data. The hospital representative / person in charge will directly communicate with the moderator for username and password access.

Record No

For the reference of each hospital participating in the online registry:

Hospital Kuala Lumpur (use short-form called slug - HKL, case no 20) = HKL20

Hospital Temerloh (use slug HOSHAS, case no 111) = HOSHAS111

Hospital Pulau Pinang (use slug HPP, case no 5) = HPP5

Hospital Seri Manjung (use slug HSM, case no 75) = HSM75

STATE	NO	HOSPITAL	SLUG
Perlis	1	Kangar	HTF
Kedah	2	Alor Setar	HAS
	3	Langkawi	HLKW
	4	Sungai Petani	HSP
	5	Kulim	HKLM

<b>Pulau Pinang</b>	6	Pulau Pinang	HPP
	7	Seberang Jaya	HSJ
	8	Bukit Mertajam	HBM
	9	Kepala Batas	HKB
<b>Perak</b>	10	Ipoh	HRPB
	11	Seri Manjung	HSM
	12	Teluk Intan	HTI
	13	Taiping	HTPG
	14	Slim River	HSR
<b>Selangor</b>	15	Klang	HTAR
	16	Ampang	HAPG
	17	Serdang	HSDG
	18	Selayang	HSLG
	19	Sungai Buloh	HSB
	20	Kajang	HKJG
	21	Banting	HBTG
<b>Wilayah Persekutuan</b>	22	Kuala Lumpur	HKL
	23	Putrajaya	HPJ
	24	Labuan	HLB
<b>Negeri Sembilan</b>	25	Seremban	HTJ
	26	Kuala Pilah	HKP
	27	Port Dickson	HPD
<b>Melaka</b>	28	Melaka	HM
<b>Johor</b>	29	Sultanah Aminah, JB	HSAJ
	30	Sultan Ismail, JB	HSIJ
	31	Muar	HPSF
	32	Batu Pahat	HBP
	33	Segamat	HST
	34	Kluang	HEBHK
<b>Pahang</b>	35	Kuantan	HTAA
	36	Temerloh	HOSHAS
	37	Kuala Lipis	HLIPIS
<b>Terengganu</b>	38	Kuala Terengganu	HSNZ
	39	Kemaman	HKM
<b>Kelantan</b>	40	Kota Bahru	HRPZ
	41	Kuala Krai	HKRAI
	42	Tanah Merah	HTM
<b>Sarawak</b>	43	Kuching	HUS
	44	Sibu	HS
	45	Miri	HM
	46	Bintulu	HBTL
	47	Sarikei	HSRK
	48	Kapit	HKPT
	49	Serian	HSRN

	50	Bau	HB
	51	Lundu	HLD
	52	Simunjan	HSMJ
	53	Sri Aman	HSAS
	54	Betong	HBTG
	55	Saratok	HSTK
	56	Mukah	HMKH
	57	Daro	HDR
	58	Kanowit	HKNW
	59	Lawas	HLWS
	60	Limbang	HLBG
	61	Marudi	HMRD
<b>Sabah</b>	62	Queen Elizabeth I, KK	HQE
		Queen Elizabeth II, KK	2HQE
	63	Sandakan	HDUK
	64	Likas	HLKS
	65	Keningau	HKNG
	66	Tawau	HTW
	67	Kudat	HKDT
	68	Kota Marudu	HKM
	69	Kota Belud	HKB
	70	Bukit Padang	HBP
	71	Beaufort	HBFT
	72	Sipitang	HSPTG
	73	Tambunan	HTBN
	74	Ranau	HRN
	75	Beluran	HBLR
	76	Pitas	HPTS
	77	Lahad Datu	HLD
	78	Kunak	HKNK
	79	Semporna	HSPN
	80	Kuala Penyu	HKP
<b>Universities</b>	81	Universiti Malaya Medical Centre	UMMC
	82	Universiti Kebangsaan Malaysia Medical Centre	UKMMC
	83	Hospital USM	HUSM

WARD / DISCIPLINE

System Record

Record no

HKL-

Ward

Discipline

☐ Surgical
☐ Orthopaedic
☐ Obstetric & Gynaecology (O&G)

Add discipline

The WARD is a free text column in the online registry. Every hospital may have different naming system for the ward

As for DISCIPLINE column: the online registry has simplified it into tick box - orthopaedic, surgical, O&G or others. As for others, please write down in free text column provided.

If a surgery is multidiscipline, you can tick two disciplines involved or write down in the free text column.

For example: plastic combined with orthopaedic team

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**PATIENT DATA**

NAME 
WEIGHT 
HEIGHT 
BMI

NRIC 
ASA: 1 / 2 / 3 / 4 / E

RN

AGE 
SEX: M / F
DIAGNOSIS:

TEL NO: 
SURGERY:

Patient Data

RN

Age

Sex

☐ Male
☐ Female

Telephone

Weight (kg)

Height (cm)

BMI

ASA

☐ 1
☐ 2
☐ 3
☐ 4
☐ E

ASA Notes

Diagnosis

Surgery



PATIENT'S NAME AND NRIC will be omitted from the online registry as a measure to protect patient's confidentiality in case website is hacked. Henceforth, the record no HAS TO BE ENTERED CORRECTLY for proper tracing and reference.

As for the ASA status, please write down patient's comorbid in detail in the free text column to facilitate future analysis.

*Case example:*

*A patient is classified as ASAIII E. He has underlying IHD, ESRF, COAD; PNB has significant role for high risk patients and it would be helpful to reveal the detail of patient's comorbid.*

*DIAGNOSIS and SURGERY are both free text columns*

Please ensure patient's weight and height to be entered to obtain BMI calculation and facilitate future analysis.

=====

<b>BLOCK BASIC INFO</b>	DATE <input type="text"/>
BLOCK(S) PERFORMED BY: _____	
ASSISTED BY: _____ WITNESSED BY: _____	
INTENTION: SURGICAL ANAESTHESIA <input type="checkbox"/> ANALGESIA <input type="checkbox"/>	
COMBINED ANAESTHETIC: NO (sole PNB include with MAC)	
YES – GA <input type="checkbox"/> SAB <input type="checkbox"/>	

DATE will be in the time frame.

Blocks performed, assisted and witnessed by – free text columns

Block intention: tick-box

Combined anaesthetic: tick-box

<b>Block Basic Info</b>	
<b>Date</b>	<b>Intention</b>
<input type="text" value="yyyy-mm-dd"/>	<input type="radio"/> Surgical anaesthesia <input type="radio"/> Analgesia
<b>Block(s) performed by</b>	<b>Combined anaesthetic</b>
<input type="text"/>	<input type="radio"/> No <input type="radio"/> Yes - GA <input type="radio"/> Yes - SAB
<b>Assisted by</b>	<b>Witnessed by</b>
<input type="text"/>	<input type="text"/>

<b>CONSENT</b>	
SURGERY <input style="width: 20px;" type="checkbox"/>	ANAESTHESIA <input style="width: 20px;" type="checkbox"/>
<b>LATERALITY CHECK (Time out):</b> Initials: _____ Site of surgery: Left <input style="width: 20px;" type="checkbox"/> Right <input style="width: 20px;" type="checkbox"/> Bilateral <input style="width: 20px;" type="checkbox"/>	

The above consent and laterality check are extra checkpoint to ensure patient's safety and correct site of block. These are not required in the data entry for online registry.

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<b>TYPE OF BLOCK</b>																																																																
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Type of Block

<input type="checkbox"/> UPPER LIMB	<input type="checkbox"/> LOWER LIMB	<input type="checkbox"/> TRUNCAL
-------------------------------------	-------------------------------------	----------------------------------

☐ Interscalene  
☐ Supraclavicular  
☐ Intraclavicular  
☐ Axillary  
☐ Median  
☐ Ulnar  
☐ Radial  
☐ Wrist  
☐ Superficial cervical plexus

☐ Femoral  
☐ Adductor canal  
☐ Saphenous  
☐ Obturator  
☐ Fascia Iliaca  
☐ LFCN  
☐ Ankle  
☐ Transgluteal  
☐ Subgluteal  
☐ Mid thigh  
☐ Distal Lateral  
☐ Popliteal (prone)  
☐ Anterior

☐ Paravertebral  
☐ PECS  
☐ Serratus plane  
☐ TAP  
☐ Quadratus Lumborum  
☐ Lumbar Plexus  
☐ Ilioinguinal  
☐ Rectus Sheath

Comments

TYPE OF BLOCK is designed as tick box. Some patient receive multiple blocks at different site.

The OTHER BLOCKS (S) column is a free text to document blocks not stated in the list. There may be newer modern blocks in future and this will serve as a column for documentation. Likewise, the COMMENTS column is also a free text for further elaboration about the blocks.

Case example:

1. Patient may receive infraclavicular brachial plexus block; the operator may use new technique called costoclavicular approach (which can be written at the comments column).

2. Patient may receive bilateral TAP block. The operator may use subcostal approach or posterior approach or dual BD (four points). Those elaboration can be written at the comments column.

=====

### BLOCK PROCEDURE NOTE (Part 1)

AWAKE	<input type="checkbox"/>	SEDATED	<input type="checkbox"/>
ANAESTHETISED	<input type="checkbox"/>	BLOCK AFTER OP	<input type="checkbox"/>

Procedure - Start time ( : ) End time ( : )

#### Premedication:

IV Midazolam \_\_\_\_\_ mg, IV Fentanyl \_\_\_\_\_ mcg

Other drugs:

Block Procedure Note (Part 1)

Procedure start time

hh:mm

Procedure end time

hh:mm

Procedure type

☐ Awake ☐ Anaesthetised ☐ Sedated ☐ Block after op

Premedication

☐ IV Midazolam (mg)  
☐ IV Fentanyl (mcg)

Add premedication

Please take note: some operator perform blocks on anaesthetised patient especially paediatric case or special population group. Likewise some blocks are done after the surgery due to OT transit time or as rescue block. However GENERAL RECOMMENDATION IS TO PERFORM BLOCK PRE-OPERATIVELY.

Premedication – free text column, other drugs used maybe IVI Precedex, Ketamine, etc.

Patient receiving pre-medication during block procedure is considered as sedated.

**1<sup>st</sup> block** \_\_\_\_\_

**Technique:** ☐ Single injection  
☐ Catheter (anchored at skin \_\_\_\_\_ cm, skin to space \_\_\_\_\_ cm),  
comment \_\_\_\_\_

**Monitoring device:**  
• Ultrasound (US) ☐  
• Nerve stimulator (NS) ☐  
• Dual Guidance (NS + US) ☐  
• Landmark ☐  
• Triple monitoring (NS+US+injection pressure) ☐

**Transducer:** ☐ Linear ☐ Curved

**Needling:** ☐ In-plane ☐ Out of plane

**Needle:** \_\_\_\_\_

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
		Poor	Lignocaine			

Block Procedure Note (Part 2)

If there's change in monitoring device, please specify accordingly.

**Block**

**Number**  
1

**Name**  
\_\_\_\_\_

**Technique**  
☐ Single injection  
☐ Catheter (anchored at skin \_\_\_\_\_ cm, skin to space \_\_\_\_\_ cm),  
comment \_\_\_\_\_

**Transducer**  
☐ Linear  
☐ Curved

**Monitoring device**  
☐ Ultrasound  
☐ Nerve stimulator  
☐ Dual Guidance (NS + US)  
☐ Landmark  
☐ Triple monitoring (NS + US + Injection Pressure)

**Catheter infusion rate**

**Drug(s)**

**Needle**

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		<input type="radio"/> Clear	Ropivacaine	<input type="text"/>	<input type="text"/>	
		<input type="radio"/> Poor	Bupivacaine	<input type="text"/>	<input type="text"/>	
			Chirocaine	<input type="text"/>	<input type="text"/>	
			Lignocaine	<input type="text"/>	<input type="text"/>	

For each block details: 1<sup>st</sup> block has free text column, then TECHNIQUE: single injection or catheter  
MONITORING DEVICE: some centre is still using nerve stimulator; some blocks are done using landmark technique per se, for example: FICB, Ilioinguinal, wrist and ankle block; triple monitoring is advocated by NYSORA and we expect it may become a trend in the near future.

Motor response is what group of muscles being twitched when you are performing the block. This indirectly tells whether we're stimulating correct group of nerve before delivering the LA.

Minimal current before delivering the LA should not be less than 0.2 mA, which indicate close proximity of needle nerve contact and risk of intra-neural injury.

If a centre is using NS: please specify the motor response:

For example: Interscalene block

Deltoid muscle twitching  
Minimal current before injection: 0.5 mA  
US image clear  
LA used: Ropivacaine 0.5% 10ml (no additive)

**BLOCK PROCEDURE NOTE (Part 2)** \*If there's change in monitoring device, please specify accordingly

For 2<sup>nd</sup> block \_\_\_\_\_

Technique: ☐ Single injection  
☐ Catheter (anchored at skin \_\_\_\_\_ cm, skin to space \_\_\_\_\_ cm),  
 comment \_\_\_\_\_

Catheter infusion rate \_\_\_\_\_ ml/hr  
 Drug (s) \_\_\_\_\_

Monitoring device:  
☐ Ultrasound (US)  
☐ Nerve stimulator (NS)  
☐ Dual Guidance (NS + US)  
☐ Landmark  
☐ Triple monitoring (NS+US+injection pressure)

Transducer: ☐ Linear ☐ Curved

Needling: ☐ In-plane ☐ Out of plane

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
		Poor	Lignocaine			

Needle: \_\_\_\_\_

Similar entry column for 2<sup>nd</sup> block and subsequent blocks

For example:

1<sup>st</sup> block – femoral nerve, using ultrasound, transducer linear probe, needling in plane, needle type Stimuplex A 50mm

2<sup>nd</sup> block – sciatic nerve anterior approach, using ultrasound plus NS (dual guidance), transducer curved probe, needling in plane, needle type Vygon 120mm

For 3<sup>rd</sup> block \_\_\_\_\_

Transducer: ☐ Linear ☐ Curved

Needling: ☐ In-plane ☐ Out of plane

Monitoring device:  
☐ Ultrasound (US)  
☐ Nerve stimulator (NS)  
☐ Dual Guidance (NS + US)  
☐ Landmark  
☐ Triple monitoring (NS+US+injection pressure)

Needle: \_\_\_\_\_

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
		Poor	Lignocaine			

For 4<sup>th</sup> block \_\_\_\_\_

Transducer: ☐ Linear ☐ Curved

Needling: ☐ In-plane ☐ Out of plane

Monitoring device:  
☐ Ultrasound (US)  
☐ Nerve stimulator (NS)  
☐ Dual Guidance (NS + US)  
☐ Landmark  
☐ Triple monitoring (NS+US+injection pressure)

Needle: \_\_\_\_\_

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		Clear	Ropivacaine Bupivacaine Chirocaine			
		Poor	Lignocaine			

**Block**

Number: 2

Name: 2nd block

Technique:  
☐ Single injection  
☐ Catheter (anchored at skin \_\_\_\_\_ cm, skin to space \_\_\_\_\_ cm),  
 comment \_\_\_\_\_

Transducer:  
☐ Linear  
☐ Curved

Catheter infusion rate: \_\_\_\_\_

Drug(s): \_\_\_\_\_

Needle: \_\_\_\_\_

Monitoring device:  
☐ Ultrasound  
☐ Nerve stimulator  
☐ Dual Guidance (NS + US)  
☐ Landmark  
☐ Triple monitoring (NS + US + Injection Pressure)

If NS is used		US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Motor response (specify)	Minimal current (mA) before injection					
		<input type="radio"/> Clear	Ropivacaine			
		<input type="radio"/> Poor	Bupivacaine			
			Chirocaine			
			Lignocaine			

Add block

It's unconventional to have more than 2 catheters for blocks. Hence 3<sup>rd</sup> and 4<sup>th</sup> block are omitted from catheter technique.

3<sup>rd</sup> and 4<sup>th</sup> block may be used for some cases. For example: the operator selectively block each nerves for lower limb surgery for AKA under sole PNB. Instead of using lumbar plexus block plus high sciatic block, the operator may selectively block the femoral nerve, obturator nerve, LFCN (lateral femoral cutaneous nerve) plus high sciatic nerve.

Likewise, some patients may require multiple site of surgeries under GA. Nerve blocks are offered for analgesia purposes hence the blocks may be more than 2. Bilateral TAP or QL block are considered as single block under the same column because the operator often use the same ultrasound device and needle for both side.

<b>BLOCK PROCEDURE NOTE (Part 3)</b>		Events: <input type="checkbox"/> Uneventful <input type="checkbox"/> Eventful (refer below)
Others (if not specified as below) _____		
Bleeding / vascular puncture		Blood aspirated: Yes <input type="checkbox"/> No <input type="checkbox"/>
Technical difficulty		IV test using Adrenaline (if used): positive <input type="checkbox"/> negative <input type="checkbox"/>
Intraneural injection		Pain on injection: Yes <input type="checkbox"/> No <input type="checkbox"/>
Poor needle visualization		Resistance on injection? Normal (<15psi) <input type="checkbox"/> High (>15psi) <input type="checkbox"/>
Anatomical variation		
Inadequate spread		
Failed stimulation (if NS used)		
Horner's syndrome		
Phrenic nerve involvement		
Epidural spread		
Pneumothorax		
LA toxicity: Prodromal sx / CVS / CNS		

**BLOCK SUCCESS**

- Adequate ☐
- Partial (require supplements) ☐
- Failed ☐
- Aborted ☐
- NA (if patient under GA / SAB) ☐

**SUPPLEMENTS IF REQUIRED**

- IV analgesics ☐
- Additional blocks ☐
- LA by surgeon ☐

If failed block, any conversion to:    GA ☐    SAB ☐

**INTRAOPERATIVE ANALGESIA IF USED**

\_\_\_\_\_

Block Procedure Note (Part 3)

**Event**

☐ Uneventful

☐ Eventful

☐ Others, please specify

**Event type**

☒ Bleeding / vascular puncture

**Blood aspirated**

☐ Yes ☐ No

**IV test using Adrenaline (if used)**

☐ Positive ☐ Negative

☐ Technical difficulty

☐ Intraneural injection

☐ Poor needle visualization

☐ Anatomical variation

☐ Inadequate spread

☐ Failed stimulation (if NS used)

☐ Horner's syndrome

☐ Phrenic nerve involvement

☐ Epidural spread

☐ Pneumothorax

☐ LA toxicity: Prodromal sx / CVS / CNS

**Block success state**

☐ Adequate

☒ Partial (require supplements)

**Supplements if required**

☒ IV analgesics

☒ Additional blocks

☐ LA by surgeon

[Add supplement](#)

☐ Failed

☐ Aborted

☐ NA (if patient under GA / SAB)

**If failed block, any conversion to:**

☐ GA ☐ SAB

**Intraoperative analgesia if used**

**BLOCK SUCCESS** – achievement of surgical anaesthesia, the ability to proceed with surgery without the need for intravenous narcotics, general anaesthesia, rescue blocks or local infiltration by the surgeon.

In the block success state column: Only fill in ADEQUATE/PARTIAL Block if it is intended as ANAESTHESIA alone. Skip if the block is only intended as analgesia.

Notes

If block procedure was eventful and the event isn't listed in the tick box column, you can write as free text in the OTHERS section. This section can also be used to further elaborate the event happened.

1<sup>st</sup> example:

A patient had supraclavicular brachial plexus block under US guidance for sole PNB (surgical anaesthesia). Block was done. During procedure, noted **anatomical variation**.

At OTHER section – you may elaborate presence of collateral vessels (transverse cervical artery and dorsal scapular artery); during block – **vascular puncture**, blood aspirate YES. LA delivery, **inadequate spread**. Overall, no hematoma after LA delivery.

BLOCK SUCCESS: partial (require supplements). Please elaborate on **SUPPLEMENTS: IV Analgesics** – given IV Fentanyl 100mcg, IV Ketamine 30mg **Additional block** had to be performed: Median nerve block under US guidance (hence operator has to re-enter 2<sup>nd</sup> block in the above section).

**Surgeon had to give LA infiltration at surgical site**. However, operation duration extended due to surgical factor and patient was restless, hence finally **converted to GA**.

2<sup>nd</sup> example:

A patient underwent laparotomy under GA plus bilateral TAP block. TAP block are administered for analgesia purpose and patient usually will receive multimodal analgesia intraoperatively as well as postoperatively. Hence we can't actually evaluate both success because patient was under GA. Supplements section cannot be written. However we can elaborate **intraoperative analgesia if used (free text column)**. This would help future analysis of intraoperative analgesia used for patients received PNBs and those without receiving PNBs.

INTRAOPERATIVE ANALGESIA IF USED:

IV Morphine 10mg, IV Parecoxib 40mg, IV PCM 1G

INTRAOPERATIVE ANALGESIA IF USED



<b>POST OP EVALUATION</b> (Please correlate with patient feedback form/chart) <span style="float: right;"><i>For APS to complete</i></span>											
Regular analgesics:	<input type="checkbox"/> Given ( oral, parenteral, combined ), specify _____ <input type="checkbox"/> Not given										
<b>Time of rescue</b> (time at which patient starts to feel pain score > 4 after surgery): _____ (if patient on regular analgesics post op and no point in time pain score > 4: no time of rescue)											
<b>Rescue analgesia</b> (additional analgesia required on top of regular analgesics when patient has breakthrough pain, score>4 after surgery): if required, specify type and time _____											
Return of motor power (>3/5) – not applicable in blocks like PVB / TAP / PECS / SPB / QLB / SCPB											
Time: _____	<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><td>&lt; 6hours</td><td></td></tr> <tr><td>6 – 12 hours</td><td></td></tr> <tr><td>12 – 18 hours</td><td></td></tr> <tr><td>18 – 24 hours</td><td></td></tr> <tr><td>&gt; 24hours</td><td></td></tr> </table>	< 6hours		6 – 12 hours		12 – 18 hours		18 – 24 hours		> 24hours	
< 6hours											
6 – 12 hours											
12 – 18 hours											
18 – 24 hours											
> 24hours											

Post Op Evaluation (For APS to complete)

Please correlate with patient feedback form/chart.

**Regular analgesics**

☐ Given (oral, parenteral, combined), please specify

☐ Not given

**Time of rescue** (time at which patient starts to feel pain score > 4 after surgery)

If patient on regular analgesics post op and no point in time pain score > 4: no time of rescue.

Time:

**Rescue analgesia** (additional analgesia required on top of regular analgesics when patient has breakthrough pain, score>4 after surgery)

If required, specify type and time.

Type:

Time:

**Return of motor power** (> 3/5)

Not applicable in blocks like PVB / TAP / PECS / SPB / QLB / SCPB.

Time:

The main objective of post op evaluation by the APS team is to establish multimodal analgesia for patients, to ensure continuity of care and pain relief, avoid breakthrough pain and assess for resolution of block effect.

If breakthrough pain occurred, we would like to know any rescue analgesia given or did patient receive postoperative multimodal analgesia as ordered. We would also love to know the timing of the breakthrough pain (surrogate measure of duration of block effect from the time block was performed). Therefore there's a sub-question of return of motor power (not applicable for truncal blocks).

The above parameters serve as assessment of block resolution and its potential complication. Overall, we understand that MOH hospitals are not research centre hence thorough regular evaluation by the APS team is difficult but we aim to provide a quality regional anaesthesia service without jeopardizing patient's safety and comfort.

**POST OP COMPLICATIONS** (to be filled up after patient is discharged from APS review)

**Complications in the ward**

No complications	
Persistent numbness	
Persistent weakness	
LA toxicity: Prodromal sx / CVS / CNS	
Infection	
Failed catheter	

**Complications after 1 month**

No complications	
Persistent numbness	
Persistent weakness	
Infection	
Not contactable	

**Others (if not listed below)**

Please specify \_\_\_\_\_

Deficit persist despite anticipated average time for block regression has passed (>24hours, not on infusion)

Please elaborate: \_\_\_\_\_

- Catheter dislodged ☐
- Catheter leaked ☐
- Pain not controlled on catheter infusion ☐

**Others (if not listed below)**

Please specify \_\_\_\_\_

Referral to APS / Anaesthetic clinic for complications detected: YES ☐ NO ☐

**Treatment rendered:**

☐ • Supportive (include follow up, counselling, or reassurance without intervention)

☐ • Intervention (include medical therapy, referrals, drainage of pneumothorax, non-invasive or invasive ventilation)

**Level of satisfaction:** Excellent ☐ Satisfied ☐ Poor ☐

Post Op Complications (To be filled up after patient is discharged from APS review)

**Complications in the ward**

☐ No complications

☐ Persistent numbness  
Deficit persist despite anticipated average time for block regression has passed (>24hours, not on infusion)

☐ Persistent weakness  
Deficit persist despite anticipated average time for block regression has passed (>24hours, not on infusion)

☐ LA toxicity: Prodromal sx / CVS / CNS

☐ Infection

☐ Failed catheter

**Referral to APS / Anaesthetic clinic for complications detected**

☐ Yes ☐ No

**Treatment rendered**

☐ Supportive (include follow up, counselling, or reassurance without intervention)

☐ Intervention (include medical therapy, referrals, drainage of pneumothorax, non-invasive or invasive ventilation)

**Level of satisfaction**

☐ Excellent ☐ Satisfied ☐ Poor

**Complications after 1 month**

☐ No complications

☐ Persistent numbness

☐ Persistent weakness

☐ Infection

☐ Not contactable

Likewise the APS team has a system to evaluate patient received PNBs, its immediate and delayed complications in the ward. Those patients with complications will be followed up upon discharge from the hospital. These patients will be reviewed in the anaesthetic clinic and receive necessary therapy.

As a feedback, patient's level of satisfaction with regional anaesthesia service shall be recorded.

Others (if not listed below)

Please specify \_\_\_\_\_

This column is free text provided for elaboration in complicated case.

For example:

A patient had persistent weakness (wrist drop) after surgery (ORIF humerus) following single shot ultrasound guided supraclavicular brachial plexus block. Block performance uneventful. Surgical notes reviewed.

Noted in the ward: wrist drop and sensory loss in keeping with radial nerve palsy. Counselling and nerve supplement medication was commenced. Neuromedical team referred. Patient was allowed home and received follow up date at anaesthetic clinic.

Anaesthetic clinic review (few months later): radial nerve palsy slightly improved, occupational therapy referred (splint). Nerve conduction test performed by neuromedical team: site of nerve injury at surgical area. Counselling and follow up continued.

DAILY EVALUATION CORNER		HKL/BIUS/REGIONAL/02		For APS to complete	
DATE					
TIME					
SEEN BY					
TECHNIQUE (*use abbreviation)					
PAIN SCORE	REST				
	MOVEMENT				
ANALGESICS					
CATHETER INFUSION	RATE				
	CATHETER SITE CLEAN, DRESSING INTACT Any LEAK? SWOLLEN? INFLAMED? BLEEDING?				
	MARKING (cm)				
NEUROLOGICAL RECOVERY	SENSORY (normal / numbness / no sensation)				
	MOTOR (power / Bromage score)				
REMARKS / INTERVENTION					

Daily Evaluation Corner (For APS to complete)

	Date	Time	Seen by	Technique (use abbreviation)	Pain score		Analgesics	Catheter infusion			Neurological recovery		Remarks / Intervention
					Rest	Movement		Rate	Catheter site	Marking (cm)	Sensory	Motor	
	2014-	hh:mm	asdfs										

Add daily evaluation

Update Patient

The online registry also has entry for daily evaluation corner. The tables are made user-friendly for documentation. For every visit, there's add daily evaluation icon.

Lastly, remember to click update patient for every recording entered.

**TAKE HOME MESSAGE:**

PNB is part of multimodal analgesia

PNB has an essential role in providing sole anaesthesia for high risk patient

NO or INADEQUATE documentation = patient OKAY? UNEVENTFUL? Or ANY POTENTIAL MEDICOLEGAL if complication arise

THE FORMAT OF THIS REGIONAL ANAESTHESIA FORM IS LARGELY BASED ON RECOMMENDATION BY NYSORA TEAM. IT IS VITAL TO ENSURE PROPER DOCUMENTATION & PATIENT IS WELL INFORMED BEFORE PROCEEDING WITH BLOCK!

## GLOSSARY

**TECHNICAL DIFFICULTY** is defined as inability or difficulty to perform the block smoothly due to difficult access, non –optimal positioning, abnormal posture or anatomy which incurs a prolonged time for block procedure, more than the average expected time.

**POOR NEEDLE VISUALIZATION** is defined as inability to visualize the shaft or needle tip in spite of the block being supervised or performed by a person with adequate training

**FAILED STIMULATION** is defined as, no stimulation in the area of expected distribution of the nerve, despite having the stimulating needle being in close proximity of the nerve to which it was expected to have caused a response

### **LOCAL ANAESTHETIC TOXICITY:**

**Prodromal Symptoms** include non-specific initial symptoms e.g. feeling of light-headedness, tinnitus, circumoral numbness, and paraesthesia.

**Cardiovascular System** manifestations include, any form of arrhythmias or cardiovascular collapse

**Central Nervous System** manifestations include, seizures, coma

**INADEQUATE SPREAD** indicate inability to visualize 4-quadrant spread of local anaesthetic around the nerve structure (Donut sign) **with** clinical sign of partial block.

**LEVEL OF SATISFACTION** is divided as excellent, satisfactory, and poor.

Excellent is defined when the patient has no negative complaints towards the procedure, pain relief and follow-up care.

Satisfactory is defined when the patient has a negative comment on either procedural, outcome on sensory effects, outcome on motor effects or follow up.

Poor is when the patient has negative comments on all aspects of regional care.