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

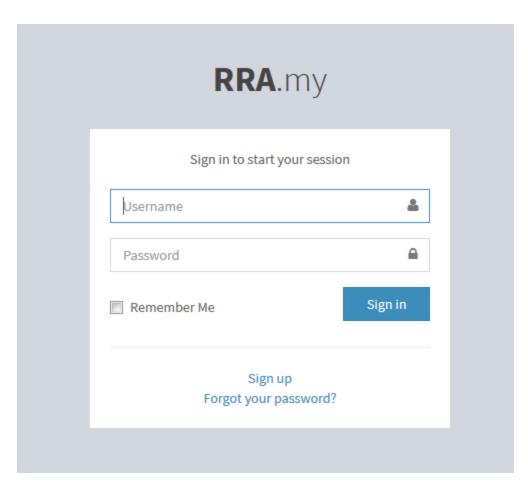
(Dr Beh ZY, Dr Amiruddin NMK and Dr Azrin MA)

AND CARLO SERVICE SERV		WARD / DISC	IPLINE	Record	No	
PATIENT DATA	LGIONALYUZ				7	
NAME	WEI	GHT	HEIGHT		BMI	
NRIC						
RN	ASA	1/2/3/4	/E			
AGE SEX: M /	/ F DIAGNOSIS:					
TEL NO:	SURGERY:					
BLOCK BASIC INFO	DATE			CONS	ENT	
BLOCK(S) PERFORMED BY:			SURGER	Υ Α	ANAEST	HESIA
ASSISTED BY:			LATED/	ALITY CHE	CV /Tim	o out):
INTENTION: SURGICAL ANAES				ls:		ie outj.
COMBINED ANAESTHETIC: NO (sole PNB include with MAC)  Site of surgery: Left Right						Right
YES - GA SAB Bilateral						
TYPE OF BLOCK						
UPPER LIMB	LOWER LI	мв		TRU	NCAL	
Interscalene Median	Femoral	Sciatic	— r	Parav	ertebral	
Supraclavicular Ulnar	Adductor canal	Transgluteal			ECS	
Intraclavicular Radial	Saphenous	Subgluteal		Serrat	tus plane	
Axillary Wrist	Obturator	Midthigh	++		TAP	-
Superficial cervical plexus	Fascia Iliaca LFCN	Distal Lateral Popliteal (prone)	+		s Lumboru	m
OTHER BLOCK(S):	Ankle	Anterior			ar Plexus nguinal	$\overline{}$
	Comments:		L		ngumui	
BLOCK PROCEDURE NOTE	(Part 1)					
DESCRIPTIONE NOTE		cedure - Start t	time ( :	) End	time (	: )
AWAKE SEDATE	:D			,	, ,	. ,
ANAESTHETISED BLOCK	AFTER OP Pre	medication:	0.45			
		IV Midazolam Other drugs:	mg, IV F	entanyi _	mc	g
1 <sup>st</sup> block	<del></del>					
Technique: Single injection			Cath	eter infe	ion rata	ml/hr
Catheter (anch comment	nored at skin cm, sk	in to space	(111),	g (s)		
Monitoring device:	Transducer: Linea	r Curved	Needling:	☐ In-pla	ane 🔲 🔾	ot of plane
Ultrasound (US)     Nerve stimulator (NS)	If NS is used					
Dual Guidance (NS + US)	Motor response Minimal cu		LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
• Landmark	(specify) (mA) before in	jection	Ropivacaine	$\vdash$		
Triple monitoring     (NS+US+injection pressure)		Clear	Bupivacaine Chirocaine			
Mandle		Poor	Lignocaine			
Needle:	•					

For 2 <sup>nd</sup> block							
Technique: Single injection							
	ored at skin	em skin to sn	200	Cathete	r infusio	on rate	ml/hr
comment	JIEG BE SKIII	_ ciii, skiii to sp	ace	Drug (s)			
Monitoring device:	Transducer:	Linear 🗌 Cu	ırved	Needling:	In-plar	ne 🗌 Out	of plane
Ultrasound (US)							
Nerve stimulator (NS)	If NS i	s used			Conc.	Volume	Adrenaline
Dual Guidance (NS + US)	Motor response (specify)	Minimal current mA) before injection	US image	LA	(%)	(ml)	Additive
Landmark     Triple monitoring	(specify (	mix) before injection		Ropivacaine			
(NS+US+injection pressure)			Clear	Bupivacaine Chirocaine			
			Poor	Lignocaine			
Needle:				Eighteame			
For 3 <sup>rd</sup> block	Transducer:	Linear 🗌 Cu	rved	Needling:	In-plar	ne 🗌 Out	of plane
Monitoring device:		is used			Conc.	Volume	Adrenalin
Ultrasound (US)	Motor response (specify)	Minimal current (mA) before injection	US image	LA	(%)	(ml)	Additive
Nerve stimulator (NS)	(эрссиу)	(may before injection	Clear	Ropivacaine			
Dual Guidance (NS + US)     Landmark			Cicai	Bupivacaine Chirocaine			
Triple monitoring			Poor	Lignocaine			1
(NS+US+injection pressure)	Needle:						
For 4 <sup>th</sup> block	Transducer:	Linear C	urved	Needling:	In-pla	ne 🗌 Out	of plane
Monitoring device:	If NS	S is used	Ι		Conc.	Volume	Adronalia
Ultrasound (US)	Motor response	1	1	LA	(%)	(ml)	Adrenalir Additiv
Nerve stimulator (NS)	(specify)	(mA) before injection		Ropivacaine	+	+	
Dual Guidance (NS + US)			Clear	Bupivacaine Chirocaine			
Landmark     Triple monitoring			Poor	Lignocaine	+	+	1
(NS+US+injection pressure)	Needle:			•			
SLOCK PROCEDURE NOTE (I		vents:	Uneve	a+ful	Event	ful (refe	r balaw)
_	Others (if not s			itiui	Event	iui (reiei	Delowy
	•	lood aspirated	-	No 🗆			
Bleeding / vascular puncture		test using Ad	_		itive 🗆	negativ	e 🗆
Technical difficulty		ain on injection				gatir	
Intraneural injection		esistance on in			nei\ 🗆	⊔iσh (∖1	5nci)
Poor needle visualization	- Ne	esistance on m	jection:	Morring (<13)	JSIJ 🗀	mgn (>1	Spsi) _
	BLOCK SUC	CESS		SLIDDLE	MENTS	IF REQU	IRED
Anatomical variation							
Anatomical variation	Adequate	te		11. 7	algocic	S	
	Adequa			• IV an	laigesic		
Inadequate spread	Partial (	te require supplen	nents)	• IV an	laigesic		
Inadequate spread Failed stimulation (if NS used)			nents)		tional b		_
Inadequate spread  Failed stimulation (if NS used)  Horner's syndrome  Phrenic nerve involvement	Partial (	require supplen	nents)				
Inadequate spread  Failed stimulation (if NS used)  Horner's syndrome  Phrenic nerve involvement  Epidural spread	Partial ( Failed Aborted	require supplen		- Addi	tional b	locks	
Inadequate spread  Failed stimulation (if NS used)  Horner's syndrome  Phrenic nerve involvement	Partial ( Failed Aborted	require supplen			tional b	locks	

AME	RN	Record No	
OST OP EVALUATION (Plea	se correlate with patient feedback form/chart	t) For APS	to comple
Regular analgesics:	Given ( oral, parenteral, combined ), s Not given		
	atient starts to feel pain score > 4 after su op and no point in time pain score > 4: no tim		
	algesia required on top of regular analges surgery): if required, specify type and tim		
Return of motor power (>3/5	O not applicable in blocks like PVB / TAP / P < 6hours 6 - 12 hours 12 - 18 hours 18 - 24 hours > 24hours	ECS / SPB / QLB / SCPB	
OST OP COMPLICATIONS  Complications in the w		low)	
No complications	Please specify		
Persistent numbness	Deficit persist despite		
Persistent weakness	regression has passed	(>24nours, not on in	iusionj
LA toxicity: Prodromal sx / CVS / CNS	Please elaborate:		
Infection	Catheter dislodged	d	
Failed catheter	Catheter leaked		
Complications after 1 r	• Pain not controlled	d on catheter infusion	n 🗆
No complications	Others (if not listed be	elow)	
Persistent numbness	`	,	
Persistent weakness	Please specify		
Infection			
Not contactable			
Referral to APS / Anaesthetic	linic for complications detected: YES	NO 🗆	
Treatment rendered:			
☐ • Supportive (include	follow up, counselling, or reassurance w	ithout intervention)	
<ul> <li>Intervention (inclu or invasive ventilat</li> </ul>	de medical therapy, referrals, drainage of ion	pneumothorax, non-	invasive
Level of satisfaction: Excelle	nt  Satisfied Poor		

	DATE			
	TIME			
	SEEN BY			
TECHNIQUE (*use abbreviation)				
REST				
PAIN SCOP	MOVEMENT			
Af	NALGESICS			
N.	RATE			
CATHETER SITE CLEAN, DRESSING INTACT Any LEAK? SWOLLEN? INFLAMED? BLEEDING?  MARKING (cm)				
CAT	MARKING (cm)			
RECOVERY	SENSORY ormal / numbness / no sensation)			
NEURO RECC	MOTOR ower / Bromage score)			
REMARKS	5 / INTERVENTION			
	DATE			
	TIME			
	SEEN BY			
TECHNIQUE	(*use abbreviation)			
PAIN SCOR	REST			
TAIN SCOT	MOVEMENT			
AA	NALGESICS			
NO	RATE			
딾	CATHETER SITE LEAN, DRESSING INTACT Any LEAK? SWOLLEN? NFLAMED? BLEEDING?			
	MARKING (cm)			
NEUROLOGICAL RECOVERY	SENSORY ormal / numbness / no sensation)			
NEURC REC(	MOTOR ower / Bromage score)			
		1		1



Every hospital involved with 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	
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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
	2	Alor Setar	HAS
3	Langkawi	HLKW	
Kedah	4	Sungai Petani	HSP
	5	Kulim	HKLM

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

	50	Bau	НВ
	51	Lundu	HLD
	52	Simunjan	HSMJ
	53	Sri Aman	HSAS
	54	Betong	HBTG
	55	Saratok	HSTK
	56	Mukah	НМКН
	57	Daro	HDR
	58	Kanowit	HKNW
	59	Lawas	HLWS
	60	Limbang	HLBG
	61	Marudi	HMRD
	62	Queen Elibazeth I, KK	HQE
		Queen Elibazeth II, KK	2HQE
	63	Sandakan	HDUK
64 65	Likas	HLKS	
	Keningau	HKNG	
	66	Tawau	HTW
	67	Kudat	HKDT
	68	Kota Marudu	HKM
	69	Kota Belud	НКВ
	70	Bukit Padang	НВР
Sabah	71	Beufort	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
	81	Universiti Malaya Medical Centre	UMMC
Universities	82	Universiti Kebangsaan Malaysia Medical Centre	UKMMC
	83	Hospital USM	HUSM
		•	

System Record	
Record no	Discipline
HKL-	Surgical
Ward	☐ Orthopaedic ☐ Obstetric & Gynaecology (O&G)
	- obstatica dynactology (odd)
	Add discipline
others. As for others, please write down in f	vo disciplines involved or write down in the free
PATIENT DATA  NAME WE	EIGHT BMI
NAME WE	A: 1/2/3/4/E
NAME WE NRIC AS/	A: 1/2/3/4/E
NAME WE  NRIC ASA  RN SEX: M / F DIAGNOSIS:	
NAME WE  NRIC AS,  RN SEX: M / F DIAGNOSIS:	A: 1/2/3/4/E
NAME WE NRIC ASA RN SEX: M / F DIAGNOSIS: _ TEL NO: SURGERY:	A: 1/2/3/4/E
NAME WE  NRIC AS  RN SEX: M / F DIAGNOSIS: _  TEL NO: SURGERY:  Patient Data	A: 1/2/3/4/E
NAME WE NRIC ASA RN SEX: M / F DIAGNOSIS: _ TEL NO: SURGERY:	A: 1/2/3/4/E
NAME WE NRIC ASA RN SEX: M / F DIAGNOSIS: TEL NO: SURGERY: Patient Data	A: 1/2/3/4/E
NAME WE NRIC ASA RN SEX: M / F DIAGNOSIS: TEL NO: SURGERY: Patient Data RN	A: 1 / 2 / 3 / 4 / E
NAME NRIC RN AGE SEX: M / F DIAGNOSIS: _ TEL NO: Patient Data RN Age Sex	A: 1/2/3/4/E

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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.

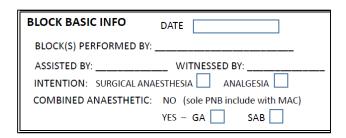
### Case example:

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.

\_\_\_\_\_\_

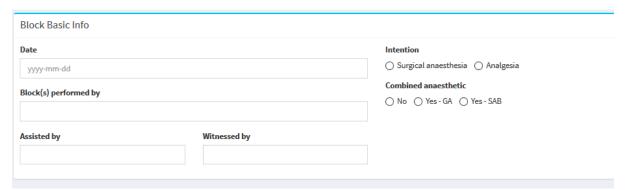


DATE will be in the time frame.

Blocks performed, assisted and witnessed by – free text columns

Block intention: tick-box

Combined anaesthetic: tick-box



LATERALITY CHECK (Tim Initials: Site of surgery: Left		
	ity check are extra checkpoint to ensured in the data entry for online registry	
TYPE OF BLOCK  UPPER LIMB	LOWER LIMB	TRUNCAL
Interscalene Supraclavicular Ulnar Intraclavicular Axillary Wrist  Superficial cervical plexus  OTHER BLOCK(S):	Femoral Sciatic  Adductor canal Transgluteal  Saphenous Subgluteal  Obturator Midthigh  Fascia Iliaca Distal Lateral  LFCN Popliteal (prone)  Ankle Anterior	Paravertebral PECS Serratus plane TAP Quadratus Lumborum Lumbar Plexus Ilioinguinal
Type of Block	Comments:	
Type of Block  ☐ UPPER LIMB	□ LOWER LIMB	☐ TRUNCAL
_	_	TRUNCAL Paravertebral PECS Serratus plane TAP Quadratus Lumborum Lumbar Plexus Ilioinguinal Rectus Sheath

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 costaclavicular 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.

\_\_\_\_\_\_

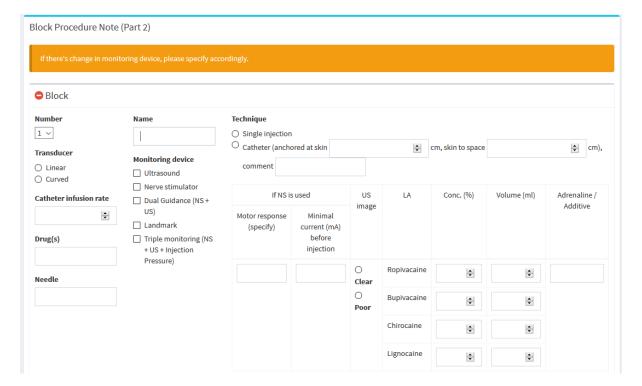
BLOCK PROCEDURE	NOTE (Part 1)	
AWAKE ANAESTHETISED	SEDATED [ BLOCK AFTER OP [	Procedure - Start time ( : ) End time ( : )  Premedication:  IV Midazolam mg, IV Fentanyl mcg Other drugs:
Block Procedure Note (Part 1)		
Procedure start time	Procedure end time	Premedication  IV Midazolam (mg)  IV Fentanyl (mcg)
Procedure type Awake Anaesthetised Sedate	ed 🔘 Block after op	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), Catheter infusion rate ml/hi								
Monitoring device:  • Ultrasound (US)  Transducer: □ Linear □ Curved Needling: □ In-plane □					lane 🔲 O	ot of plane		
Nerve stimulator (NS)     Dual Guidance (NS + US)     Landmark	If NS is used  Motor response Minimal current (specify) (mA) before injection		US image	LA		Conc. (%)	Volume (ml)	Adrenaline / Additive
Triple monitoring (NS+US+injection pressure)			Clear	Ropiva Bupiva Chiroc	caine			
Needle:			1001	Lignoc	aine			



For each block details: 1st 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 (Pa	art 2) <sub>*lf t</sub>	here's change ir	monitor	ing device, ple	ase spe	cify acco	rdingly
For 2 <sup>nd</sup> block							
Technique: Single injection							
Catheter (anchor comment	red at skin	cm, skin to sp	ace	cm).		on rate	ml/hr 
Monitoring device:  • Ultrasound (US)	Transducer:	Linear 🗌 Cu	ırved	Needling:	] In-plar	ne 🗌 Out	of plane
Nerve stimulator (NS)     Dual Guidance (NS + US)     Landmark	If NS Motor response (specify)	Minimal current (mA) before injection	US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Triple monitoring			Clear	Ropivacaine Bupivacaine Chirocaine			
Needle:			F 001	Lignocaine			

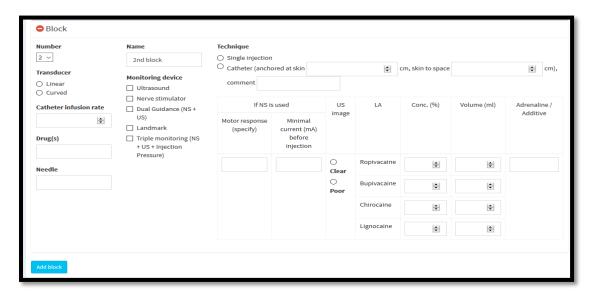
Similar entry column for 2<sup>nd</sup> block and subsequent blocks

## For example:

 $1^{\text{st}}$  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 Cur	Needling: ☐ In-plane ☐ Out of plane				
Monitoring device:  • Ultrasound (US)	If NS is used  Motor response Minimal current (specify) (mA) before injection	US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Nerve stimulator (NS)      Dual Guidance (NS + US)      Landmark		Clear	Ropivacaine Bupivacaine Chirocaine			
Triple monitoring	1 1	Poor	Lignocaine			
(NS+US+injection pressure)	Needle:					
For 4 <sup>th</sup> block	Transducer: Linear Curved		Needling: ☐ In-plane ☐ Out of plane			
Monitoring device:  • Ultrasound (US)	If NS is used  Motor response Minimal current (specify) (mA) before injection	US image	LA	Conc. (%)	Volume (ml)	Adrenaline / Additive
Nerve stimulator (NS)     Dual Guidance (NS + US)     Landmark		Clear	Ropivacaine Bupivacaine Chirocaine			
Triple monitoring		Poor	Lignocaine			1
(NS+US+injection pressure)	Needle:					



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.

BLOCK PROCEDURE NOTE (Part 3) Events: Uneventful Eventful (refer below)							
Others (if not specified as below)							
Bleeding / vascular puncture  Technical difficulty  Intraneural injection	Pain on injection: Yes 🗌 No	sed): positive $\square$ negative $\square$					
Poor needle visualization	Resistance on injection: Noi	mar(<15bsi) 🗀 mgm(>15bsi) 📋					
Anatomical variation	BLOCK SUCCESS	SUPPLEMENTS IF REQUIRED					
Inadequate spread	Adequate	_					
Failed stimulation (if NS used)		IV analgesics					
Horner's syndrome	Partial (require supplements)						
Phrenic nerve involvement	• Failed	Additional blocks					
Epidural spread	• Aborted						
Pneumothorax	NA (if patient under GA / SAB)	LA by surgeon					
LA toxicity: Prodromal sx / CVS / CNS		En by surgeon					
If failed block, any conversion to:  GA SAB INTRAOPERATIVE ANALGESIA IF USED							

Block Procedure Note (Part 3)	
Event	Block success state
○ Uneventful	☐ Adequate
○ Eventful	☑ Partial (require supplements)
Others, please specify	Supplements if required
Event type	✓ IV analgesics
☑ Bleeding / vascular puncture	☑ Additional blocks
	☐ LA by surgeon
Blood aspirated	
○ Yes ○ No	Add supplement
IV test using Adrenaline (if used)	
O Positive O Negative	☐ Failed
	Aborted
☐ Technical difficulty	☐ NA (if patient under GA / SAB)
☐ Intraneural injection	
☐ Poor needle visualization	If failed block, any conversion to:
☐ Anatomical variation	○ GA ○ SAB
☐ Inadequate spread	Intraoperative analgesia if used
☐ Failed stimulation (if NS used)	
☐ Horner's syndrome	
☐ Phrenic nerve involvement	
☐ Epidural spread	
☐ Pneumothorax	
☐ LA toxicity: Prodromal sx / CVS / CNS	

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:

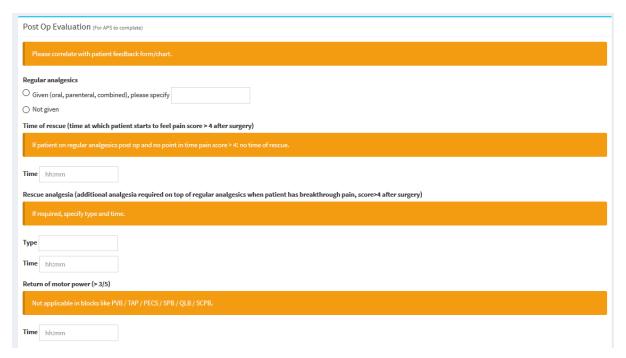
A patient underwent laparotomy under GA plus bilateral TAP block. TAP block are administered for analgesia purpose and patient usually will receive multimodal analgesia intraoperatively as well as postoperatively. Hence we can't actually evaluate both success because patient was under GA. Supplements 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

POST OP EVALUATION (Plea	ase correlate with patient feedback form/chart)	For APS to complete						
	Given (oral, parenteral, combined), spec Not given	ify						
(if patient on regular analgesics post	patient starts to feel pain score > 4 after surger op and no point in time pain score > 4: no time of	rescue)						
	nalgesia required on top of regular analgesics varues and time							
Return of motor power (>3/	5) — not applicable in blocks like PVB / TAP / PECS	/ SPB / QLB / SCPB						
	< 6hours							
Time:	6 – 12 hours							
	12 – 18 hours							
	18 – 24 hours							
	> 24hours							



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.

Complications in the ward	0	thers (if not listed below)	
No complications	P	ease specify	
Persistent numbness	ם ר	eficit persist despite anticipated average tim	ne for block
Persistent weakness	re	gression has passed (>24hours, not on infus	sion)
LA toxicity: Prodromal sx / CVS / CNS		Please elaborate:	
Infection	1 .	Catheter dislodged	
Failed catheter		Catheter leaked	
Complications after 1 month		Pain not controlled on catheter infusion	
No complications	Ī		
Persistent numbness	į c	Others (if not listed below)	
Persistent weakness	F	lease specify	
Infection	Ī		
Not contactable	Ī		
		ng, or reassurance without intervention) referrals, drainage of pneumothorax, non-in	vasive
☐ • Intervention (include medica	l therapy, r	referrals, drainage of pneumothorax, non-in	vasive
<ul> <li>Intervention (include medica or invasive ventilation</li> </ul>	l therapy, r	referrals, drainage of pneumothorax, non-in	vasive
☐ • Intervention (include medical or invasive ventilation  Level of satisfaction: Excellent ☐ S	atisfied eview)	referrals, drainage of pneumothorax, non-in	vasive
Intervention (include medica or invasive ventilation  Level of satisfaction: Excellent S  OST OP Complications (To be filled up after patient is discharged from APS  Implications in the ward  No complications  Persistent numbness  Deficit persist despite anticipated average time for block regression has (>24hours, not on infusion)  Persistent weakness  Deficit persist despite anticipated average time for block regression has (see the persistent weakness)	atisfied eview)	Poor Complications after 1 month No complications Persistent numbness Persistent weakness Infection	vasive
Intervention (include medical or invasive ventilation)  Level of satisfaction: Excellent S  Sot Op Complications (To be filled up after patient is discharged from APS)  Implications in the ward  No complications  Persistent numbness  Deficit persist despite anticipated average time for block regression has (>24hours, not on infusion)  Persistent weakness  Deficit persist despite anticipated average time for block regression has (>24hours, not on infusion)  LA toxicity: Prodromal sx / CVS / CNS  Infection  Failed catheter  ferral to APS / Anaesthetic clinic for complications detected	atisfied eview)	Poor Complications after 1 month No complications Persistent numbness Persistent weakness Infection	vasive
Intervention (include medical or invasive ventilation  Level of satisfaction: Excellent □ S  ost Op Complications (To be filled up after patient is discharged from APS  mplications in the ward  No complications  Persistent numbness  Deficit persist despite anticipated average time for block regression has (>24hours, not on infusion)  Persistent weakness  Deficit persist despite anticipated average time for block regression has (>24hours, not on infusion)  LA toxicity: Prodromal sx / CVS / CNS  Infection  Failed catheter  ferral to APS / Anaesthetic clinic for complications detected  Yes ◎ No	atisfied eview)	Poor Complications after 1 month No complications Persistent numbness Persistent weakness Infection	vasive
Intervention (include medical or invasive ventilation)  Level of satisfaction: Excellent Second Seco	atisfied eview)	Poor  Complications after 1 month No complications Persistent numbness Persistent weakness Infection Not contactable	vasive

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.

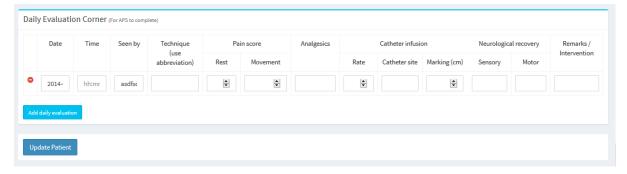
## For example:

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		
	DAT	E						
	TIME	E						
	SEEN	ВУ						
TECHNIC	QUE (*use	abbreviation)						
PAIN S	CODE	REST						
PAINS	CORE	MOVEMENT						
	ANALGE	SICS						
NO		RATE						
CATHETER INFUSION	CLEAN, I	THETER SITE  DRESSING INTACT  SAK? SWOLLEN?  MED? BLEEDING?						
S.	MA	RKING (cm)						
NEUROLOGICAL RECOVERY	(normal	SENSORY / numbness / no ensation)						
NEUROL		MOTOR 'Bromage score)						
REMA	ARKS / INT	ERVENTION						



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.