

Updated 2025



Orientation Guide for Anaesthetic Locums

Tupua Tamasese Meaole Hospital, Apia, Samoa

Authors

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with many thanks to the Samoan Dept of Anaesthesia

Introduction

This guide has been created to help anaesthetist's providing locum cover within the department of Anaesthesia and ICU at Tupua Tamasese Meaole Hospital, Apia. It has been created by the combined efforts of previous locums and from information kindly provided by the Samoan Anaesthetists. While we have tried to be as up-to-date as possible, please be aware that there may have been significant changes by the time you arrive for your locum. We hope this provides a reassuring overview of the environment you will be working in and would welcome any feedback on this document.

Samoa – Apia and General information

Arrival

Faleolo International Airport is some distance from Apia itself. Expect the 45min taxi ride to cost \$60Tala as a set fee to any hotel in Apia. While many taxis will accept credit cards, cash is far more widely accepted. There are two options for ATMs within the arrivals area of the airport.

Accommodation

There is a range of accommodation options available across Apia.

Mid-high end accommodation options:

- The Tanoa Tusitala
- Sheraton Samoa Aggie Greys
- Taumeasina Island Resort.

The Tanoa and Aggie Greys are easy walking distance into the centre of Apia, with the Tamueasina resort being a taxi ride away. All options mean you would need to get a taxi to the hospital which could be a consideration if you are going to be on-call (although taxis are cheap). These hotels have been used often by locums and their families.

Closer to the hospital is Lyns Getaway, a comfortable bed-and-breakfast that is popular with visiting medics and medical students. As they are a five minute walk to the hospital this is an ideal site for being on-call. Would suit the locum who is travelling alone or as a couple as it is some distance to the town centre and other activities. To enquire about availability please email lynns@lynnsgetaway.com.

Samoa – Hospital Information

Tupua Tamasese Meaole Hospital, Apia



TTM is the main hospital in Samoa. With 200 beds it offers the full range of secondary care to the over 200,000 people who live in Samoa. Tertiary level care is often provided through joint initiatives with New Zealand or through visiting specialist teams.

There is a four theatre complex, supported by an adjacent ICU located on the first floor above the main entrance (closest building in this image).

Anaesthetic department and theatre/ICU layout

The Anaesthetic Department is based within the Theatre complex. An office-sized space with tea and coffee making is available. This also includes a bed for the SMO on-call if required.

Within the four theatres there is variation in terms of the equipment available and the lists allocated. Ideally, the allocations should be:

- Theatre 1: Standby / Emergency
- Theatre 2: Sepsis
- Theatre 3: Ortho
- Theatre 4: General/Urology

A four bed PACU supports the theatres and this is also where you will find a pharmacy for controlled and other medications.

Preadmissions occur in the area immediately outside of the theatre or in a small two bay room immediately inside the theatre complex. All patients will present here and this is where you'll have first contact with them unless they are coming via ICU.

ICU is directly opposite the main theatre complex. It has six patient beds and can ventilate 2-3 at any one time depending on staff. This is an 'Open-ICU' structure so anyone can admit patients to ICU for your ongoing care.

Overall Theatre Schedule:

The ideal is for three theatres to be running, with the 4th operating as an emergency theatre (often Obstetric emergencies).

Staff are on site at 08:00 to assess theatres and review any cases that are immediately pending. This gives the anaesthetic team time to check and prepare theatres safely.

At 08:30, there is a whole-of-theatre briefing where lists are confirmed and any issues for the day are discussed. These lists are being often revised by the surgical teams via online platforms (WhatsApp/Viber) before a written list is presented at the 08:30 meeting.

The current pattern for elective work is:

- A daily general list (Urology and ENT are covered within this).
- A daily sepsis theatre.
- Monday & Friday, Obs & Gynae have two theatre lists.
- Tues, Wed, Thurs: Ortho elective/Acute.

Expect a degree of movement between theatres depending on the acute volume and especially emergency C-sections.

After hours:

- First on call covers emergency cases in Theatre and ICU patients/admissions from 1700 - 0800. Second on call comes in when required.
- Weekend First cover similar – 24 hours. Weekend Second on call does the whole weekend.

Regular Education Sessions

- Wednesday 8am – Grand Round, Level 3 in building above ED.
- Thursday 8am – Anaesthesia CME, Theatre Conference Room.
- Fridays – Theatre Sim on certain weeks.
- Samoan Medical student teaching – you may be asked to do some of this.
- Elective students – come and go.

Staffing

During the PSA meeting it is common for one of the local team to stay behind to assist the locum team. They are an invaluable source of help and assistance during the week, but shouldn't be expected to cover on call. One of the local SMO team will have written a roster that will cover theatre on-call, ICU-related cover and overnight call for the week. This will be shared with the locum team before, but sometimes this comes quite late as the local team adapts the plans to fit resource constraints.

Case mix

Generally the cases you should expect are similar to a regional New Zealand hospital with the complicating factors of obesity and diabetes playing a large role in an increased perioperative

mortality. However, there can be a huge variety of cases which will be challenging given the unfamiliar equipment, staff and environment.

Obstetric cases and sepsis form a major component of the health care burden, and you will be involved in the management of these often quite unwell patients. Being familiar with current management of obstetric issues is very useful (as are good spinal anaesthesia skills!)

Paediatric cases are very common, and you will encounter a child on most days. Expect to see the full age range of children presenting with mainly acute issues – trauma in the older child and neonatal complications in the younger child. Within most locum teams, there will be someone with Paediatric experience but we do recommend you spend some time in your local hospital with a trusted paediatric anaesthetist before you locum if you feel this is an area you should refresh on.

Preop Consult

Anaesthesia paperwork is on the shelves in PACU.

Many patients speak some English. The staff are very helpful with translation when required.

Latest bloods are usually written on the 'Problem List' in the notes, with Patients' Problems noted above. The Drug Card is a sheet of A4 at the back of the notes.

The Surgeons flag complex patients and ask for earlier consult via the Duty Anaesthetist (usually the on call).

Consent - Relatives will often sign the consent for the patient, and this is acceptable here (unlike in NZ/Australia).

Spinals

- Anything that can possibly be done under spinal is done under spinal here, including lower limb sepsis.
- The needles currently in supply are not pencil point, and they are quite flexible. They don't come with an introducer needle, but the yellow hub hypodermic needles fit nicely if you prefer an introducer needle. It is easier to place the introducer over the spinal needle before you approach the patient.
- Spinals are done sitting forward on the bed here. You can ask for the Palagi way (sitting sideways on the bed) if you want.
- Ice blocks are in the freezer in the hallway.
- Spinal Equipment. Spinal Trays are in CSSD. Heavy Marcaine and Spinal Needles are up front by the Drugs Fridge.

General Anaesthesia

- There is generally a good supply of Propofol for induction, with Ketamine as second choice. Maintenance with Isoflurane is common, with Sevoflurane becoming increasingly available (although expensive!). Please be aware that supplies are limited when considering gas flow rates.

Intraop Fluids/Antibiotics

- These are documented by both us and the theatre nurses, so it is helpful if you let them know when you put up a bag of fluid and what it is/ write 1 on it.
- Antibiotics: also let them know when you give these.
- Fluids are Normal Saline or Hartmann's (ICU has Plasmalyte): warmer is in the corridor, next to the freezer. There is no Albumin.

Blood products

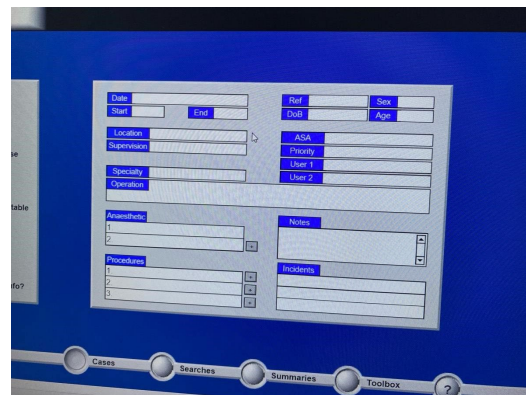
- There is no stocked Blood Bank here, as despite community programmes, people only tend to give units for their own relatives for a procedure on a certain day; they are often not happy for it to be donated to the bank.
- For any procedure where there is pre-op anaemia, or a large blood loss is expected/possible, they will be postponed until their family/contacts have donated a standby unit(s).
- The thresholds for transfusing seem high, by NZ standards, but there is not much else available in the event of bleeding.

PACU

Patients are transported without supplemental O2. If they need Oxygen, you can request a cylinder from PACU. Hudson Masks are available in PACU.

Handover to the PACU nurse, then fill out the RCA Logbook on the computer in the lefthand corner (the only electronic record of theatre patients).

- Password: Marcaine2025
(Faamuamuas account)
- Press 'Add A New Patient' to save your entry (it then disappears).



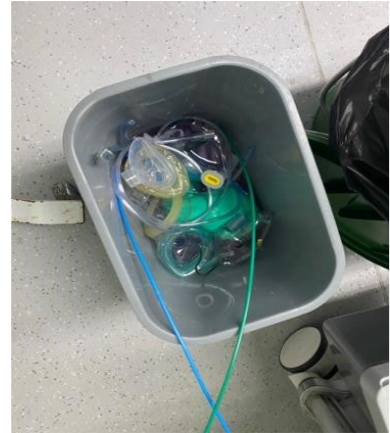
PACU keeps patients for a much shorter time than you may be used to, so please ensure you are happy with their recovery progress before you leave and start the next case.

Post op Orders

- The surgeons are responsible for ward analgesia here, not us.
- You can prescribe IV opioids for PACU.
- PACU keeps patients for a much shorter time than you may be used to.
- IV vasopressor/inotrope is given on the general wards, via a burette set and pump, so the presence of these therapies does not necessitate ICU admission.

Used Airway Gear

- Masks are in short supply
- Used Masks are placed in the Airway Tub in Theatre which contains disinfectant.
- Discard all used airway devices (previously re-used but adequate stock currently).
- The theatre nurses clean these when the tub gets full and then dry them for restocking.
- Elbow connectors are in short supply. It is best to place them on the machine side of the filter, so you can reuse them for multiple patients. If they are placed on the patient side of the filter, they also need to go in the Airway Tub for cleaning.
- Filters, Yankauer suction catheters are discarded.
- Suction tubing, which is not grossly soiled, is rinsed with water (use an old sterile water bottle and fill from the sink). This is reused for subsequent patients.
- **Monitoring equipment/trolleys will need to be cleaned by you.**



End of Day

- Circle, tubing, bag, Sodalime are best disconnected from everything and aired out overnight (due to the humidity).
- Check which theatre will stay up for Emergencies.

ICU

- Open Model
- Shared Care between one or more Inpatient Teams and Anaesthesia
- Drug supplies for all areas are intermittent and prone to shortages

Anaesthesia Equipment (thanks to the Samoan Dept of Anaesthesia)

There are biomedical engineers who are responsible for the whole hospital rather than theatres specifically. They can assist with major issues, but it is your responsibility to set up the theatre environment. There is no equivalent to the Anaesthesia Technician Role that is present in NZ/Australia, although one of the nursing staff will be available to assist with intubation and extubation (at your request).

The next few pages deal with a Theatre/Machine check process for the Blease Focus machines.

Machine check

High pressure checks

Wall oxygen is supplied from a cylinder bank upstairs, which is staffed continually for cylinder changeovers.

After turning on the Blease Focus machine and accompanying monitor, perform the high-pressure check

- Check pipeline pressure gauge for Oxygen, Air, Nitrous.
- Turn on Oxygen flowmeter.
- Remove Oxygen pipeline from wall.
- Check alarm sounds (whistle); NB no audible alarm for Acoma machine in Table 4.
- Turn on the oxygen cylinder on the back of the machine – NB in Table 4, the cylinder is not plumbed in. You will need the emergency cylinder from the front of PACU in the event of a machine failure.
- Check Oxygen cylinder pressure gauge reads at least 100kPa.
- Turn off Oxygen cylinder on the back of the machine.
- Plug the Oxygen pipeline back in.
- **Check Oxygen is actually Oxygen** (eg in the event of human error in cylinder bank) by placing a gas sampling line at Common Gas.
- Outlet (CGO) and checking the monitor for an FiO₂ increase.

Back Bar / Vaporiser Checks



- Run high flow Oxygen and check each Vaporiser turns on.
- Block CGO with hand checking for rebound of flowmeters when you remove your hand.
- Use gas sampling line to check that volatile analysis is working also.
- Check volatile levels in vaporizer.
- Sevo bottles are often found under the machine/in drawers. If not there, the cupboard on the RHS of the Anaesthesia Storeroom contains new Sevo bottles.
- When refilling Sevo, place a finger over the tiny hole on the RHS, or Sevo will leak out of here as you pour.

Anaesthetic Storeroom



Low

Pressure Check

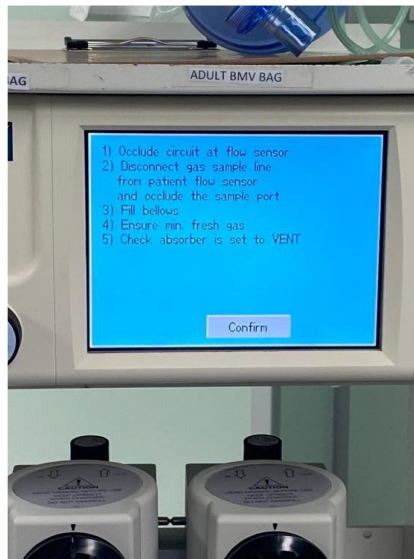
The machines should be taken apart at the end of each day so that they can dry out. So you may need to construct them in the morning:

- Plug the circle in (filter and pressure/flow bracket go on expiratory limb).
- Plug in bag.
- Plug in black cable (O2 cell) as shown.
- Place sodalime cylinder in place and rotate to engage lugs – make sure black seal is above lugs, as shown in the picture.
- (Acoma sodalime has a lever to Open/Close)



The Blease Focus takes you through some checks for:

- Compliance
- Leaks
- System: including 2 bag check -Ventilator
- (Follow the Directions on the screen)



Scavenging

- Check the yellow scavenging line is plugged into the wall (NB Acoma machine does not have scavenging!).
- Can check for vacuum by unplugging this from the machine and feeling with your hand (if desired).

Other Machine things to Check

Air: the Acoma machine has an air compressor attached, which needs to be turned on for Medical Air. The Blease machines have pipeline Medical Air.

Scavenging: is it plugged in? Can you detect a vacuum when you detach it from the machine? (NB the Acoma machine has no scavenging possible for now)

Sodalime: this can be removed by hand when it expires (empty it into the bin). There is new sodalime to replace it in the big white plastic bottles in theatre.



Monitoring

- **ALARMS:** Be aware that the monitors have different default settings: eg one of the monitors defaults to BP alarms Off and SpO2 tone Off.
- **Gases:** You need to press 'Monitoring Normal Screen' to get Gases to reappear at times.
- **Acoma machine:** constantly alarms for Low Pressure (Oxygen) even when the pipeline pressure gauge reads adequate. The SpO2 probe is broken, and no replacements are available. This machine/monitor is due for replacement.

Machine Problems?

- There are approximately three Biomed staff members for the whole hospital
- They are called when problems are detected
- Their ability to fix problems is limited, constrained by a lack of spare/ replacement parts
- It pays to discuss problems with a local Anaesthetist first, as they can let you know if this is new/significant or not.

Other Airway Equipment to Check (MSMAID)

Machine – as above

Suction – Check this is working and a clean Yankauer available (can be found in PACU).

Monitors – as above. NMT not available.

Airways

- **Mask:** You have to look around for a size appropriate one of these. Often found in PACU.
- **LMAs/ETTs:** for the case. These are found in the trays in theatre, or on the LHS of the Anaesthesia storeroom.
- **Laryngoscopes:** New batteries come from the Charge Nurses' office.
- **Airway adjuncts:** These can be found in the drawers of the Anaesthesia trolley or on the LHS of Anaesthesia storeroom.
- **Elbow:** A variety is available. Be careful selecting one that is intact with no missing locks/bungs.
- **Filter:** New filters are in a bag on the RHS of Anaesthesia storeroom. □ Gel for LMA
- **Syringe for LMA/ETT cuff**
- **Tape for securing Airway:** Ask Theatre Nurses if no roll present.



Emergency Breathing Gear

Oxygen Cylinders are in PACU

- Be aware there is NO Oxygen Flowmeter on the machines or in theatre.
- To use the Laerdal Self Inflating Bag, you need to use the CGO. To connect to this, you need an ETT connector from a Paeds-sized ETT, in order to connect Oxygen Tubing to the CGO.
- **Check you have this assembly before starting the list.**



IV Equipment

- **IV Fluids and Giving set:** In trolley in corner of trolley. Warm Fluids in warmer in hallway outside Table 4.
- **IV Insertion Equipment:** Drawer in theatre stocked by staff from time to time. Syringe/Needle racks also. Alcohol swabs are kept in the Theatre storeroom. Yellow plugs for IV cannulas also kept there. Minibore extension tubing is in the Anaesthesia storeroom.
- **Arterial line:** If you require one, ICU can make up the transducer set for you (call them).
- **Syringe driver:** Two for all the Theatres. Could request another from ICU when required.

Drugs

- Fentanyl is used in LSCS Spinals when there is stock.
- Opioids can be requested from the PACU Charge Nurse

Important Drugs to Check (Trolley is restocked by you, unlike at home)

- Propofol
- Adrenaline
- Vasopressor (**stock varies** – Metaraminol, Phenylephrine, NA)
- Ephedrine – if required, sign out from PACU
- Suxamethonium
- Atropine
- Neostigmine
- Lignocaine
- Oxytocin, Ergometrine, Tranexamic Acid For LSCS



Be aware that suppliers vary, so ampoules of different drugs can be very similar and vice versa

Other Equipment to Check

Paediatric Specific Equipment

Infant Resus Bay outside Table 1. Paediatric Trolley is also there.



Difficult Airway Equipment



C MAC with Miller 1, MAC 3, MAC 4 and D blade is kept in the Bay outside Table 3. Be aware this is also used for ICU cases when required.

Storz Fiberoptic scope is kept in the Anaesthesia office – used with the same screen as the C MAC (i.e. you can't use both at the same time for a difficult airway). Needs cleaning afterwards, so out of action for the following patients.

There is also an Ultrasound machine (a new donated one) separate from the one ICU uses.