

**PPE Selection Flowchart for Procedural Based Care**  
(In consideration of asymptomatic COVID disease and false negative possibilities)

**Procedure agreed by team as necessary and appropriate** by procedural team  
(COVID19 implications considered and consented)

**Patient COVID Positive OR  
Person Under Investigation  
(PUI)**

**Patient COVID "Negative"**  
Specifically "Negative" denotes any of the list below but in the context of community transmission and asymptomatic patients and false negatives may not be truly negative.

- Tested PCR Negative or
- Negative using screening tools and interviews



NO

YES

**Use AGP PPE – Entire Team**

- For the entire team participating.
- Limit number of staff to a minimum to deliver care as required by law and for safe care to limit AGP PPE consumption.
- Consider keeping N95 respirator and goggles donned for consecutive cases, maintaining Infection Control standards

**Is the procedure contemplated to include AGP techniques?**  
*AGP techniques include SASA examples (Intubation, extubation, bronchoscopy, airway suctioning, chest physiotherapy etc.) as well as procedural type AGP (e.g. high power drill use with aerosolization of fluids (orthopaedics, some maxillo-facial surgery, FESS), high volume fluid suctioning in surgical field, endoscopies, NGT placement)*



NO

**Dispute resolution** if No agreement can be reached:

- Involve Anaesthetist, Surgeon, scrub sister, on site hospital manager (or representative).
- All participant to the decision must be happy to participate in direct patient care in the final PPE decision.
- If no decision is able to be unanimously agreed, escalate to Facility Head Office who will involve SASA as needed.

**Agree Risk is moderate - high**

**Can the procedure be done in any way to avoid AGP techniques without any risk of requiring AGP technique**

NO

YES

**Should procedure be delayed, cancelled or can it be altered to avoid possible AGP techniques?**

NO

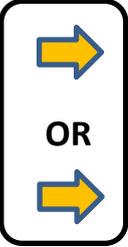
YES

**Proceed with standard PPE** appropriate to procedure and clinical environment.  
All Staff to wear the same level of PPE



**Team discussion** mandated to evaluate (4 options to flow from here):

- Patient factors; probability of asymptomatic disease
- Procedure factors; probability of AGP requirement
- Consider possibility of conversion of case from regional to GA and whether time will be available time to don AGP PPE – i.e. would donning of AGP be possible without time delay for active direct patient care or not?



Agree risk is extremely low or later donning possible

Delay case

## PPE Selection Guide Post Team Discussion/ Flowchart

(Negative Screen or Positive Screen with Negative Test requiring necessary procedures)

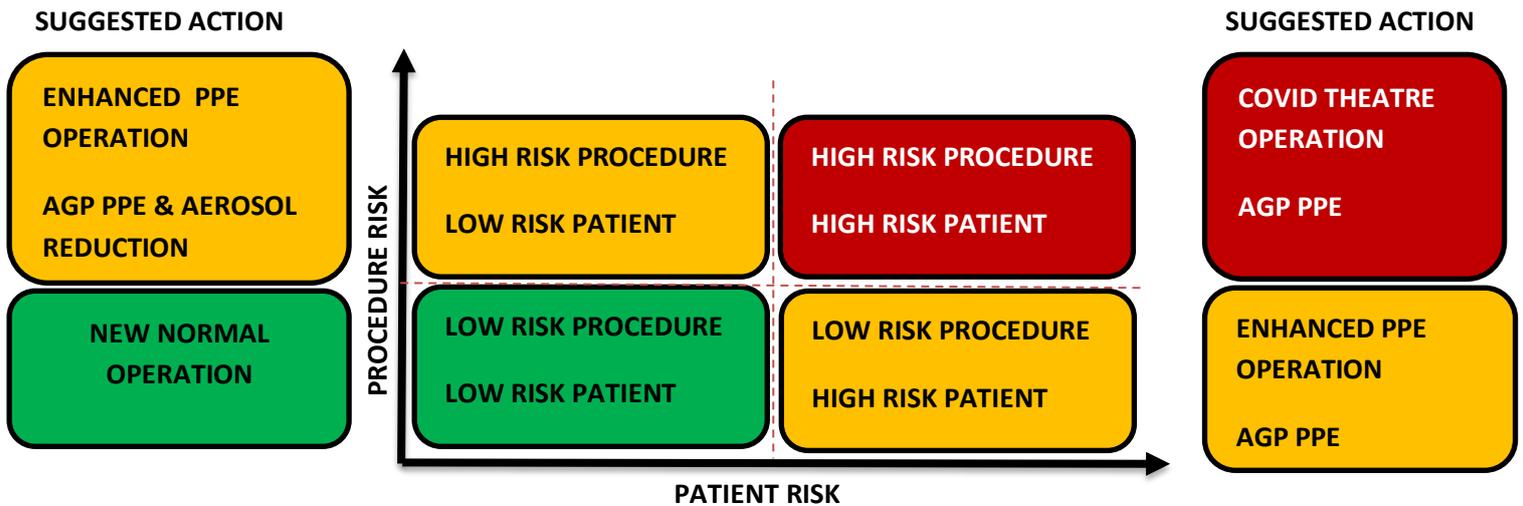
### RECOMMENDED STANDARD (NEW NORMAL) FOR GA

- Viral Filters on expiratory limb
- Practice safe airway techniques, avoid cough, avoid airway leaks
- Plastic sheeting post airway established and peri-extubation
- Extubate IN operating theatre; Surgical mask on patient prior to leaving theatre
- Preserve theatre ventilation
- Standard PPE and Contact Precautions
- Avoid Aerosol Generating Devices / Use Aerosol Eliminating Devices

### ENHANCED PPE OPERATION

- In-line/ closed suction
- Ensure NO Aerosol Generating Devices OR Use Aerosol Eliminating Devices
- AGP PPE

## PPE MATRIX - RISK & ACTION SELECTOR



### NOTES

- HIGH RISK PROCEDURES: AEROSOL GENERATING PROCEDURES
- HIGH RISK PATIENT: Positive contact; travel history; HCW in contact with COVID
- Patient unable to screen to be treated as PUI
- NO URGENT COVID THEATRE OPERATION AFTER HOURS
- PPE Definitions as per SASA GUIDELINE – AGP PPE: Gown, Visor, N95, Gloves

## PPE Selection and Use for Procedure based care in the Era of Community Transmission of COVID19

South Africa has clearly moved from a containment to mitigation phase in terms of the COVID19 pandemic. The latest NICD guidance with expanded definition of a PUI (Person Under Investigation) makes this clear and has established that community transmission is taking place.

The broad definition (and reality) of a PUI coupled with the fact that PCR mainstream testing (nasal and oropharyngeal swabs) is up to 70% sensitive means that healthcare workers are now working in an environment of mandated caution. This is further supported by the guidance that all persons wear masks for general public use in public spaces, coupled with hand hygiene and social distancing. This presents specific realities to the entire healthcare sector and specifically to those healthcare workers involved with procedural care or Aerosol Generating Procedures (AGP).

### Reality

In an ideal situation all healthcare workers dealing with patients would be enabled to use AGP PPE for any procedure that could progress to, or was associated with aerosol generation. The reality is that AGP PPE is limited in supply globally and a responsible and reasonable approach needs to be accepted and adopted.

This reality plus the experience of stock theft has prompted facilities (public and private) to formulate systems that ration the use of AGP PPE but that may or may not be validated.

This guidance therefore serves to propose a rational individualised approach to selection of AGP PPE on a per patient per procedure basis that complements the [SASA Recommendations on PPE for anaesthesia providers during the COVID-19 Pandemic](#) as well as the [SASA PPE Update and Position Statement](#) published 4 April 2020 with guidelines.

### Principles of PPE use:

- The requirement for Healthcare workers to provide care in a safe environment and not put their lives at risk is a proviso of care. The first rule of care is to ensure safety of one's surroundings and not put oneself.
- It is indefensible and unethical for a healthcare worker to undertake patient care as part of a team where another member of the team participates without access to or not donned with the appropriate PPE.
- NICD Guidelines published should provide reference for appropriate PPE use. The latest version released in April 2020 provides reference by accessing [here](#).

### Decisions relating to procedural care and PPE use

There is clarity in many documents regarding appropriate use of PPE and AGP PPE. It must however be appreciated that these documents are guidelines and cannot reasonably cater for every patient, every procedure and every circumstance. Specific issues (examples and not limited to these alone) not considered in many guidelines include:

- Procedural conduct around potential asymptomatic patients tested negative (with an approximate 30% false negative rate for PCR testing with nasal and oropharyngeal swabbing.)

- Procedures carried out that then inadvertently require an AGP (e.g. unplanned intubation post spinal anaesthetic)
- Procedures not listed in examples but that are inherently more likely to be AGP – e.g. hip fracture under spinal anaesthetic that requires reaming or high-power drills.

Even in the event that a non AGP is planned, the consideration and requirement for appropriate donning and doffing is mandated. This would not be achieved in the limited time that may be available to react and establish safety in such an environment.

### Principles of the SASA Proposed Procedural PPE Pathway

- Principles of PPE use apply (HCW safety, team PPE requirement and NICD guidelines – all expanded upon above).
- The pathway is a guideline for decision making in selecting appropriate PPE and not an absolute or exhaustive pathway.
- A reasonable and responsible approach to utilisation and conservation of PPE should always be considered (e.g. Keep N95 respirator on for longer durations and to protect the HCW for multiple sequential patients and in accordance with correct infection control procedures). This includes decision making on the least number of staff required to participate in a procedure should resource limited PPE be mandated for use.
- Where dispute arises, reference to the dispute resolution points is encouraged.

The principle of ensuring healthcare workers are appropriately protected from harm and illness in an effort to ensure a sustainable healthcare workforce is highlighted in this process.

We specifically refer members to reference the [SASA PPE Update and Position Statement](#) published 4 April 2020 with guidelines.