Australasian College
for Emergency Medicine

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COVID-19 Webinar

Q&A summary

20 March 2020

Disclaimer

This document is an educational resource summarising the webinar that occurred on Friday 20 March 2020. Information needs to be adapted to individual jurisdictions. Every effort was taken to answer as many of the questions as possible as circumstances permitted at the time.

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Summary of Expert Presentations

Screening and fever clinics

Integrate with primary healthcare to keep screening in the community.

Manage residential nursing home care carefully

Swab liberally but have clear criteria

“Pandemic clinics” or “fever clinics” in the community

All well people managed in the community

Significant reliance on telehealth

Triage

Pre-screening in front of ED – COVID-19 vs non (or low-risk) COVID, looking for the moderate to high risk COVID-19 patients

Then triage to COVID-19 ED vs non-COVID-19 ED

If COVID-19 patient with respiratory illness and are stable, aim to go straight to a COVID-19 ward

Health Service Preparation

Hospital to enter into “disaster mode”

Reconfiguration of ED to allow high risk COVID-19 vs low risk COVID-19 patient flows

- cease all education and clinical support time unrelated to COVID19
- cease all extraneous clinical services including non-critical outpatient clinics
- cease all non-critical elective operating
- redeploy staff (whose areas have shut) to other areas within their skill base

ED Staffing

Consider the vulnerable populations amongst your ED staff. Suggestions are:

- no-one >50 in intubating teams
- no-one >60 in COVID-19 ward/areas
- no-one >70 providing patient care anywhere.

Pregnant patients are also vulnerable and should not be treating patients at risk of COVID-19 (RANZCOG guidelines)

Critical care patients – 5% of patients are healthcare workers

Staff wellness critical and needs to be actively addressed

Personal Protective Equipment

Donning and doffing practice: train carefully in its use and use judiciously as stores will deplete

- keep it secure (locked up)

Prioritise the role of "checker" in teams to observe PPE use and identify breaches

Utilise meticulous droplet precautions – droplet and contact the commonest cause of transmission

Aerosolisation felt to be less of a risk but do not use nebulisers

Do not use "masks on all staff" as it will give false sense of security

Medication and Medical Management

No treatments felt to be of benefit yet (Lopinovir, Chloroquine), trials under way

Standard antibiotic guidelines to treat secondary infection in CAP

Avoid NSAIDs

Airway Management

Aim for most COVID-19 intubations be done in ICU/Critical Care areas

Intubation teams (age limits for staff) in designated critical care areas (try not to intubate in ED)

Train anaesthetists in intensive care

Questions and answers

These were the questions asked during the webinar by members of the audience.

Screening and fever clinics

What is the evidence for getting infected more than once in the short term with COVID-19?

There is anecdotal some evidence on individuals being re-infected in the short term however this is not a widespread phenomenon. And it is possible that the observed re-infection (by PCR) reflects the limitations of the performance (sensitivity/specificity) of the nasopharyngeal swab test. It is likely that individuals develop immunity as antibodies are detected after infection.

How do we 'clear' someone as recovered from COVID-19?

When clinically well and 2 negative PCR swabs after at leat one week from the start of their illness. Latest guidance (21/3/2020) from the Commonwealth department of health suggest 10 days after the onset of mild COVID-19 19, a person may be cleared from isolation if well for at least 72 hours (no swab required).

Is there any case reported of false negative in the COVID-19 testing? If so, how many? What implications does this pose for follow-up?

Yes the sensitivitiy of the NPS is 70-80%. In severe disease, a lower respiratory sample (BAL) has >90% sensitivity. Also consider CT chest for severe disease as it is thought to be more sensitive than NPS. In mild disease, we may miss the diagnosis but other alternatives are not always feasible in our context (e.g. routine CT / BAL).

Given the large number of negative tests per number of people tested, potential risk to path capacity to test, and flu season upon us, when will we move to testing only people that are very sick and assume all others with mild symptoms have the disease until proven otherwise. What is the tipping point?

Good question. Mass screening is beneficial from a public health point of view, while attempting 'containment'. This enables early detection and case isolation. Once that becomes futile we may move to selected testing based on severity. The tipping point is likely when there is a steady rate of local transmission and isolation is not feasible- I don't have specific numbers.

Is COVID-19 more infectious/easily transmitted than the other Influenza viruses/common colds?

COVID-19 19 is more infectious than seasonal and pandemic flu (2-3 times more infectious).

It seems counterintuitive to me to make patients come to the hospital for screening in the context of milder illness. Those patients still need to either use public transport of the hospital carpark which further raises the risk of community/ famine transmission. Are there plans for drive through screening? Is there a possibility of a field clinic (perhaps supported by army) to run a fever clinic?

Some areas have started drive through screening. Fever clinics for mild illness should be in the community, away from hospitals and with separate staffing to EDs.

Do we have a false negative rate for our current test kits? Will we be eventually moving to an improved testing method with faster yields?

Each laboratory will have differing results which you may be able to obtain from them. There is a significant false negative and false positive proportion. It is hoped that testing will become more accurate (e.g. serology).

Is there a case for accelerated testing in exposed medical workforce e.g. test at 3 and 5 days? Rather than isolate for 2 weeks.

Yes there is. The limiting factor is shortage of laboratory reagents.

Triage and allocation

What is the practical advice when you have exhausted your negative pressure rooms in the ED? Many EDs will only have one or two.

Use a single room. If not space the patient bays 2M apart from each other and follow meticulous droplet precautions (and N95 masks).

Guidelines for separating respiratory from non-respiratory/non-infectious patients (streaming from triage) would be really useful. I work in a small hospital without ICU, with no critical care capacity on wards outside of the operating theatre. Is ACEM working on this?

Yes there is an ACEM team of experts / authors who are putting together a resource on this and other topics.

Regarding the cohorting of all viral URTI / LRTI patients, given a significant number would be COVID-19 negative with an alternative diagnosis such as rhinovirus or flu, are we not putting those patients at risk of acquiring coinfection with COVID?

If we can maintain safe practices between caring for patients (such as changing PPE) and physical separation (2M) between the treatment areas then we can reduce this risk. While the patients are in transit it is best they wear a surgical mask. This also applies in the waiting room.

In the event of no negative pressure rooms being available for those patients in the possible COVID-19 zone, would CPAP be less aerosolised risk than high flow ? What would be your recommendation for cohorting these types of patients (i.e if no negative pressure rooms available).

The current recommendation is to move these patients to a negative pressure or single room, or failing that a cohorted area. HFNP and CPAP both risk aerosolisation (as does nebulisation). Use a MDI with spacer, low flow oxygen and consider early intubation in consultation with ICU.

Is anyone using an ED entry screening tool with a view to sending some patients home directly without entry to ED?

We are not aware of an entry screening tool in use for triage to home but some hospitals are developing tools to send patients directly to inpatient wards to avoid ED. The alternative is a Fever/COVID-19 clinic which bypasses the main ED triage system.

Health Service Preparation

Will our radiologists provide real time reporting through this crisis? Will our pharmacists work 24/7 to allow round the clock discharges from the wards?

All clinical areas need to address increasing capacity to meet demand as soon as possible.

We are having difficulties preventing redundant work in multiple silos (i.e. three different airway plans from ICU, anaesthetics and ED). How do we get the whole hospital on one page quickly?

Form an expert clinical group across these departments and be proactive with whoever will come on board. Engage hospital management as well.

We hear messages in the media saying that we are yet to see the worst of the impact of COVID-19 here in Australia. What are the views from Dr Chaudhuri and Associate Professor Palmer on this?

We are yet to see the worst of this pandemic. This will get worse with cases doubling every 4 days .

My health authority has not yet enacted disaster plans the way others have. How do we as emergency doctors make this happen?

By practising drills of managing severe respiratory failure to familiarise yourself with the process, PPE and the nuances of managing influenza-like illness (ILI) safely.

What has been done with regard to hospital ED avoid from Nursing Homes / Residential Aged Care Services? Issues here with GP reluctance to provide services there, especially to review respiratory illness. Potential for aged care patients to come to ED and return to NH with COVID-19 – furthering spread.

Fever clinics are one way. The other is outreach but this is difficult due to staff shortages.

What plans are there around retrieving patients from rural and remote communities if COVID-19 does spread there? How do we provide equitable treatment to our most vulnerable population? What is the risk to retrieval staff?

The Commonwealth Department of Health has infection control guidelines for Aeromedical retrieval.

ED Staffing

Has there been any discussions about redeploying Specialty Registrars from Orthopaedics and other relevant specialties that may see a reduced elective workload in the ED to help with seeing some of the injuries?

Yes, that has been advanced in a number of jurisdictions

How are you coordinating the rostering of your ED teams?

Into COVID-19 / infectious and non-COVID-19 / non-infectious teams. Suggest using neutral language such as hot and cold.

By what percentage are you increasing your medical workforce and when will you be instituting these increases? Are you planning on putting FACEMs on nights?

Several institutions are increasing their FACEM FTE as able. The shortage of junior medical doctors makes recruitment in significant numbers difficult. We are not aware of Consultants being rostered to nights as yet due to COVID19.

What is the ACEM consensus on risk in pregnant staff, and their role including whether they should be doing clinical work?

There are documented risks to pregnant staff and it is advised that they should not see patients at risk of COVID19.

It looks like smoking is going to be deemed a high risk co-morbidity as well as it increases ACE2 levels in the lungs, which is how the coronavirus gets into the cell. Maybe smokers should be removed from the front line workers, in the same way as the older medical staff?

This has not been considered in any current guideline.

Is ACEM able to advocate for the return of essential frontline workers with valid working visas but who are not citizens or permanent residents.

ACEM has little capacity to influence government decisions on immigration matters.

What can be done in rural hospitals to ensure plans are being developed around locum dependent workforce? I know we can do cross cover from other teams, what about hospital cross cover?

Establishing links with other hospitals in the region and larger hubs is critical in this situation. An ACEM COVID-19 guideline will have further advice specifically on this.

Any promising measures or projects you have come across for maintaining staff well being? Any ideas and tips for boosting morale and wellness amongst emergency staff at all tiers in times of social distancing ?

Now more than ever it is essential to maintain staff wellbeing. This starts with being kind to each other, but continues to wellbeing activities that meet social distancing requirements. ACEM is developing resources to help address staff wellbeing.

At what point does our medical workforce become immune and can the longer term plans include a positive and negative workforce?

While there is anecdotal evidence that re-infection can occur a "positive 'immune' workforce" cannot be created. While we now know that antibodies are formed after infection we do not know how long immunity lasts.

Is there an IgM/IgG assay becoming available? Assuming a reduction in severe illness with possible recurrence, would this free up a pool of known previously infected staff?

See above.

Any recommendations for staff with small children – should they be pre-emptively self isolating or only if unwell? Only if exposed without PPE?

Currently the advice for staff who are parents of young children is the same as other staff.

Any suggestions for sensible use of well staff who are observing self isolation at home?

Clinicians at home in quarantine can be utilised for telehealth / diversion of patients from acute services. Consider using staff at home to clear electronic message bank results. There is a role for staff to develop resources for local use.

Do you think we should be isolating ourselves outside of going to work due to being at high risk of exposure?

As responsible community members we should follow the government's social distancing and personal hygiene advice. Isolating more than that is an individual decision.

Should well emergency staff start practicing self imposed quarantine for themselves and family to reduce risk of community transmission, and thereby unknowingly bringing it into the emergency department? How are healthcare workers advised to best avoid inadvertently infecting family members?

Monitor your own health and get tested as the earliest sign of illness

Have you had staff requests to stand down?

It is important to explore the reasons for this with any individuals. There have been more requests from ward staff than ED staff. Staff morale is incredibly important at this time.

Personal Protective Equipment

Regarding maintaining respiratory droplet precautions, there are concerns that there is insufficient supply for clinicians to be wearing surgical masks. Am I correct in thinking both patients and clinicians require surgical masks to prevent a jump in transmission to clinicians?

While managing an ILI it helps to have the patient wear a surgical mask. For routine cares the HCW should wear N95 and goggles if COVID-19 is suspected.

Given the increased risks to HCW, and also the need to protect us in order to keep us at work and prevent us from being sent home to isolate, do you feel there is a case that all ED staff should wear at the very minimum a mask for the entirety of the shift regardless of the type of patients being seen?

The integrity of the mask is compromised within hours so it is best to use before patient contact. The risk of constantly wearing a mask is false reassurance.

PPE stocks are already an issue across Australia. Inappropriate use of PPE seems to be a contributing factor with excessive use of N95 masks being a common example. How are you educating staff on what they should and shouldn't be wearing? And how are you enforcing it?

We are constantly engaging and educating our staff. It helps to point out variations in use as a peer.

Could you please share PPE drill videos?

Each local network will have their own. Many drills are available online.

Can you please advise utility/ efficacy trolley tents for transport/ retrieval of COVID-19 Do they reduce spread to staff and need for terminal clean?

There is limited experience in Australia / New Zealand with these transport tents.

In the absence of a negative pressure room and SaO2 <93%, is it still reasonable to provide HF nasal prongs or NIV in the red (COVID) zone if staff have appropriate PPE on (and does that mean standard surgical mask as opposed to N95 mask.

If this occurs you must wear N95 and goggles/face shield. See answers above – it is preferable to have these patients in a single room.

Children are known to be asymptomatic carriers (actual numbers unknown) . What are your recommendations for PPE, aerosolisation (mainly adrenaline nebs for croup and HFNP) in children presenting with fever and respiratory illness from viruses clinically undifferentiated from COVID-19?

Droplet precautions at a minimum in this instance. Some institutions may choose to routinely use N95 until the diagnosis is apparent or if the child is expected to recover quickly.

Do we PPE for all our paed patients?

See above. It is necessary to use PPE for children presenting with COVID-19 symptoms, which represents a significant proportion of paediatric ED presentations.

PPE recommendation if the patient on NIV?

It is recommended to avoid NIV if possible. If it needs to be given, use full PPE (N95 mask, gown, gloves, eye protection) in a negative pressure room.

Staff are concerned about transmission to family. After working a day in a dirty zone should they shower before going home. Do they need to wear theatre scrubs, cover hair or shoes?

Staff do not need to shower additionally as PPE protects your clothes. However, some staff may choose to wear scrubs under their PPE – scrubs could be taken off before leaving work, placed in a bag and then washed as per usual at home

Given that the virus stays on surfaces for up to 3 days, what would be the best cleaning protocols for ED shared equipment, benches, computers and so on?

All high touch surfaces required high frequency wiping and cleaning. One suggestion is that at the beginning of each shift, all surfaces including phones, keyboard computers etc are wiped down.

There are comments repeatedly being made about breaching standards. I agree we will have to breach treatment standards for many conditions. But I struggle to accept we should breach our standards for infection control. I am not prepared to put my colleagues at risk. Interested in the panel's opinion

This is a situation where we must not breach the infection control standards – these are a minimum requirement and a breach would create significant risk to the staff.

Given the shortages of PPE are becoming world wide, do we have any indication of which direction this is going to go? Is there going to be increasing production/stocks or do we think the shortages are going to become critical?

As factories in manufacturing centres (eg China) are able to restart their manufacturing and exporting processes, it is hoped that PPE shortages will ease over the medium term.

How are you proposing to manage staff who were accidentally exposed to a later diagnosed COVD + patient if they hadn't worn any masks/PPE, i.e. at present that staff member should isolate themselves for 14 days, and testing only indicated if they become symptomatic (T>37.5 and resp symptoms)?

Yes staff would best be tested if symptomatic – and be isolated in the meantime. Significant exposure is defined by 15 minutes face-to-face without PPE or two hours continuously in the same room.

Do we have any data for asymptomatic transmission rates, particularly from patients to HCW?

There is no good data at present.

For a negative pressure room to be effective, does it need to have an antechamber? PPE conservation – is there guidance on how to make one mask last a whole shift? It looks like we are not going to have enough masks for ongoing 'correct' mask use?

It is not recommended to wear one mask for prolonged periods. PPE should be used in line with current guidelines.

Medication and Medical Management

Other countries have started to use medications and see the effect on the patients. Are there antiviral or other medications that can be used beside supportive treatment in Australia?

Trials are starting in Australia assessing antiviral and immunomodulatory therapies. Candidates under consideration are hydroxycholorquine, Lopinavir and Tocilizumab.

What is the current recommendation on use of anti-inflammatories with COVID-19 -19, either in suspected or in proven cases?

There is limited evidence to suggest NSAIDs may impact on severity in COVID19. It could be considered to decrease general use of NSAIDs and avoid in respiratory illnesses. If a patient is on NSAIDs for another condition then it may be continued.

What is the current recommendation on use of steroids with COVID-19 -19, either in suspected or in proven cases?

Steroids are best avoided in the critically ill if solely given for ARDS (due to worse outcomes).

What is the current recommendation on avoiding ACE inhibitors?

There may be limited evidence that taking ACEI increases risk during a COVID-19 infection. ED staff can consider advising patients to change this medication if there was a suitable efficacious alternative. However, the AHA does not recommend ceasing ACE-i at the moment.

Would like to hear info regarding ventilation in a non-differentiated patient who has arrested. We had a patient with sudden unexpected PEA arrest and are not sure how to proceed.

Always wear appropriate PPE before undertaking resuscitation.

Any advice or guidance on treatment of those with pre-existing asthma and COPD who arrive with undifferentiated infective exacerbations we would usually use nebulisers in given the risk of aerosolisation? I expect the need to emphasise inhaler with spacer device in mild to moderate cases of asthma and COPD but what about severe? Does this mean limiting access to NIV in patients who it is most indicated in, ie COPD with type 2 respiratory failure and respiratory acidosis?

The recommendations are to avoid aerolisations procedures unless in full PPE in a negative pressure room. This includes NIV, HFNC and nebulisers.

Please use MDI with spacer; use NIV in a negative pressure room where possible, and use O2 by nasal prongs up to 15l/min avoiding HFNP. Some centres are moving to early IV salbutamol for these patients.

Is there a guideline for COPD / APO hypoxia situations? Particularly with the reality – no negative pressure room and in a group of people who should not be intubated.

At the moment there is no guideline. Treatment will be guided by the resources available.

Is early IV Salbutamol in severe asthma / COAD a good option?

It could be considered in patients who cannot have the usual nebulisers and NIV.

Airway Management

In the intubating teams, who is involved, is it a 24/7 service?

It will depend on the size of your hospital. In larger hospitals, anaesthetic departments are planning on a 24/7 service. In a smaller hospital, it may be staffed by ED and ICU as well, and more limited hours with an on-call component.

What guidance is there around non invasive ventilation – such as spacers, nebulisers, BiPAP or high flow?

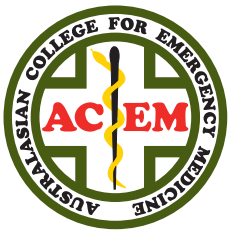
As above – At present these treatment modalities are not recommended for confirmed or likely COVID-19 19 patients unless used in full PPE in a negative pressure room.

What is the average length of time spent on a ventilator for COVID-19 patients?

Some reports state 10 days at present.

If we are intubating patients earlier than we usually would, has there been discussions at your respective institutions of the scenario where a patient is intubated early in ED but there is no ICU/ventilated bed capacity? Where do these patients go? Are they being extubated? Or are we having discussions with patient's/relatives and being quite direct with capacity and NOT intubating these patients?

This scenario could occur. Most hospitals are actively trying to create additional ICU capacity in theatre and other areas. It will be important to discuss limitations of care in the ED with patients and their relatives who may not benefit from intubation. While this is no different from normal practice, there may be some change to the thresholds we have for these discussions.



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