Focus on COVID-19

COVID-19 SUMMARIES
CORONAVIRUS

A recap of recent research

COMMENTATORS

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Knowledge is evolving rapidly on the properties of the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and the clinical syndrome coronavirus disease 2019 (COVID-19), and guidance on management will change over time. *Respiratory Medicine Today* brings you a selection of summaries and commentary on some of the recent research findings on SARS-CoV-2 and COVID-19 published in the international literature.

Preventing COVID-19: physical distancing, face masks and eye protection

Findings of this meta-analysis support physical distancing and the use of face masks and eye protection to help prevent virus transmission.[1]

Physical distancing of at least 1 metre may reduce the risk of SARS-CoV-2 transmission but distances of 2 metres could be more effective, according to a systematic review and meta-analysis.

Published in *The Lancet*, the review of 172 observational studies across 16 countries also found that protective eye coverings and face masks were protective for healthcare workers and the general public.

The researchers identified 44 comparative studies of 25,697 patients with COVID-19, severe acute respiratory syndrome (SARS) or Middle East respiratory syndrome (MERS) in healthcare and nonhealthcare settings. They found that physical distancing of 1 metre or more was associated with an 82% lower risk of infection (adjusted odds ratio [aOR], 0.18) compared with a distance of less than 1 metre. Risk was lowered further with increasing distance, extrapolated up to 3 metres.

Use of face masks and respirators reduced the risk of infection by 85% (aOR, 0.15) compared with no face mask use. N95 respirators were linked with greater protection than disposable surgical face masks or similar (e.g. reusable 12- to 16-layer cotton masks), but both were protective. After adjusting for N95 respirator use in the healthcare setting, the researchers found face-mask use to be similarly effective in both the healthcare and nonhealthcare settings.

Eye protection with face shields, goggles and glasses was also found to be protective, with a 78% lower risk of infection compared with no eye protection (aOR, 0.22).

None of these interventions, even when properly used and combined, provided complete protection from infection, the researchers noted, stressing the need for other basic measures such as hand hygiene.

Comment by Professor Christine McDonald AM
Chu and colleagues' meta-analysis, supported by the WHO, included studies of observational

data from both healthcare and nonhealthcare settings, including 44 comparative studies involving nearly 26,000 patients with COVID-19, SARS or MERS.[1] Their findings confirmed the importance of measures such as physical distancing, protective eye covering and facemasks in both settings. They observed that in healthcare settings N95 or similar respirators were 96% effective (aOR, 0.04; 95% CI, 0.004–0.30) compared with other masks, which were 67% effective (aOR, 0.33; 95% CI, 0.17–0.61) and noted the importance of eye protection which resulted in a 78% reduction in infection.

Discussion in this paper included the biological plausibility of aerosol spread of SARS-CoV-2, albeit with a lack of data to support viable virus in the air outside of aerosol generating procedures. The authors were unable to identify robust data to inform other aspects relevant to spread of infection, such as ventilation and healthcare setting (ED/ICU/ward-based /other), that may modify the degree of protection provided by personal protection strategies. Of note, the accompanying editorial by MacIntyre, et al. strongly supported the use of a respirator as the minimum standard of care for healthcare workers on COVID-19 wards, based on the precautionary principle.[2]

Of relevance to this discussion, in the Australian setting, Victorian Chief Medical Officer Andrew Wilson reported on 25 August 2020 that 70 to 80% of healthcare workers infected with SARS-CoV-2 in Victoria's second wave of infection were infected at work.[3]

1. Chu DK, et al, on behalf of the COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. Lancet 2020; 395: 1973-1987; https://doi.org/10.1016/S0140-6736(20)31142-9.
2. McIntyre CR, et al. Physical distancing, face masks, and eye protection for prevention of COVID-19. Lancet 2020; 395: 1950-1951.
3. Remeikis A. Coalition criticises Victorian government's handling of pandemic – as it happened. The Guardian 2020; 25 August. https://theguardian.com/australia-news/live/2020/aug/25/coronavirus-australia-latest-updates-scott-morrison-jobkeeper-economy-business-health-nsw-covid-19-testing-victoria-inquiry-live-news.

Australian study finds low SARS-CoV-2 transmission in educational settings in first wave

During the first wave of COVID-19 in New South Wales, transmission rates of SARS-CoV-2 in educational settings was low, consistent with mild infrequent disease in the child population, according to research published in The Lancet Child and Adolescent Health.[1]

Australian researchers prospectively examined COVID-19 transmission among children and adults in the 7700 educational settings in NSW. During Term 1 (25 January to 10 April), they identified 12 children and 15 adults who attended 15 schools and 10 early childhood education and care (ECEC) settings while infectious (defined as 24 hours before symptom onset). They identified and monitored 1448 close contacts, 43.7% of whom had nucleic acid testing, antibody testing, or both.

Eighteen secondary cases were identified among the close contacts (attack rate, 1.2%). Five secondary cases were identified in three schools (three children and two adults; attack rate, 0.5%). Although no secondary transmission occurred in nine of the 10 ECEC settings, in one, transmission occurred in six adults and seven children. Excluding this single ECEC setting, the overall attack rate in all settings was 0.4%, or one in every 282 contacts.

The researchers noted that the data should be viewed in context of the epidemic characteristics and COVID-19 response in NSW at the time. Most educational facilities were closed briefly after case identification and close contacts were required to home quarantine for 14 days. During much of the study period, educational settings were open but attendance rates in schools dropped in mid to late March when distance learning was implemented.

'Higher SARS-CoV-2 primary case and transmission rates might have occurred in schools and ECEC settings if the epidemic had escalated or if extensive testing, tracing, quarantine of exposed close contacts, and other public health mitigation measures were not simultaneously and effectively implemented,' they wrote. Nevertheless, 'our findings provide evidence that SARS-CoV-2 transmission in educational settings can be kept low and manageable in the context of an effective epidemic response.'

Comment by Professor Anne Chang AM

Macartney and colleagues' prospective cohort study in NSW involving 12 children and 15 adults who attended daycare/schools while infectious described a low transmission rate of 1.2% of the 1448 contacts (but only 43.7% had PCR or antibody testing done). While this data is encouraging, data from other studies suggest that the transmission rate from children may be higher in children aged over 10 years.

A South Korean study reported that transmission is likely to be age dependent.[2] From their nationwide COVID-19 contact tracing program involving 59,073 contacts of 5,706 COVID-19 index patients, Park and colleagues found that the household transmission of SARS-CoV-2 was highest if the index patient was 10 to 19 years of age (rate of 18.6%; 95% CI, 14.0%–24.0%) and lowest in children 0 to 9 years (5.3%; 95% CI, 1.3%–13.7%). The data are supported by the findings of

Goldstein and colleagues' systematic review (in preprint).[3]

1. Macartney K, et al. Transmission of SARS-CoV-2 in Australian educational settings: a prospective cohort study. Lancet Child Adolesc Health 2020 Aug; https://doi.org/10.1016/S2352-4642(20)30251-0.
2. Park YJ, et al. Contact tracing during coronavirus disease outbreak, South Korea, 2020. Emerg Infect Dis 2020 Oct; doi.org/10.3201/eid2610.201315.
3. Goldstein E, et al. On the effect of age on the transmission of SARS-CoV-2 in households, schools and the community. medRxiv 2020.07.19.20157362; doi.org/10.1101/2020.07.19.20157362 (preprint).

Update on clinical presentation and management of COVID-19

This Australian narrative review summarises the latest knowledge, at the time of publication, on presentation, diagnosis, assessment and management of patients with COVID-19.[1]

Among the topics covered by Victorian infectious diseases experts in their narrative review, published in the *Medical Journal of Australia*, is the emerging evidence of clinical benefit for some specific therapies for COVID-19.

The authors note the findings of the large international randomised controlled trial on remdesivir that have led Australian national guidelines to adopt a conditional recommendation for its use outside a trial setting when necessary. In this trial, remdesivir improved recovery time in hospitalised patients with severe COVID (see summary on page 38).

The authors also discuss the preliminary report on the interim findings from the UK RECOVERY trial on dexamethasone. This trial found low-dose dexamethasone substantially reduced mortality in patients hospitalised with COVID-19 who were given supplemental oxygen or mechanical ventilation (see summary on page 38).

Other treatments being investigated include lopinavir-ritonavir; chloroquine and hydroxychloroquine; the combination of interferon beta-1b, lopinavir-ritonavir and ribavirin; and interleukin 6 (IL-6) antagonists.

The authors stress that the WHO interim guidance on the clinical management of COVID-19 states that investigational therapies for COVID-19 should be used only in approved randomised controlled trials.

On the assessment of patients with suspected or confirmed COVID-19, the authors say features of severe disease and risk factors for progression to severe disease, including older age and comorbidities, should be sought. Clinical features found more often in patients who have had a fatal outcome compared with survivors include dyspnoea at presentation and lower initial oxygen saturation. They note that most patients with COVID-19 have mild illness and can usually be managed in the community, but patients should be warned about symptoms of concern, such as increasing breathlessness, and seek prompt medical review if they occur.

Reported possible complications related to SARS-CoV-2 infection, including thromboembolic events in the lungs and cerebrovascular system and acute cardiac injury, are also discussed, as is the interest in monitoring large patient cohorts and analysing linked datasets at a population level to determine other rare and longer term COVID-19 complications.

Comment by Dr Andrew Henderson

Thevarajan and colleagues performed a comprehensive review and summary of available evidence for the diagnosis and management of COVID-19. Highlighting the recent clinical trials that have guided current clinical practice, this review also serves to demonstrate the need for ongoing clinical trials to prevent the introduction of COVID-19 therapies without appropriate assessment of their efficacy.[1]

Dexamethasone (6 mg daily for up to 10 days)[2] is now widely considered to be standard of care for patients with severe or critical COVID-19. Remdesivir, a novel nucleotide analogue, was the first reported therapy with proven efficacy for the treatment of SARS-CoV-2 infected patients. However, the primary efficacy reported in the largest clinical trial was a reduced time to recovery not reduction in mortality.[3] Use of remdesivir has been limited by availability of the drug.

Although widely proposed as potential effective treatments based primarily on in-vitro data and limited single-arm studies, hydroxychloroquine (or chloroquine) and lopinavir-ritonavir have not demonstrated efficacy when tested in clinical trials.[4,5] The results from trials involving convalescent plasma, inhaled or subcutaneous interferon beta, favipiravir, ivermectin and IL-6 pathway inhibitors are awaited, although press releases from pharmaceutical companies were not supportive of sarilumab or tocilizumab.[6,7] Overall, the results to date support the use of nonproven, experimental therapy in clinical trials only.

1. Thevarajan I, et al. Clinical presentation and management of COVID-19 (narrative review). MJA 2020; 213 (3); doi: 10.5694/mja2.50698.
2. Horby P, et al. Dexamethasone in hospitalized patients with Covid-19 – Preliminary report. N Engl J Med 2020 Jul 17; doi.org/10.1056/NEJMoa2021436.
3. Beigel JH, et al. Remdesivir for the treatment of Covid-19 – Preliminary report. N Engl J Med 2020 May 22; doi.org/10.1056/NEJMoa2007764.
4. Horby P, et al. Effect of hydroxychloroquine in hospitalized patients with COVID-19: Preliminary results from a multi-centre, randomized, controlled trial. medRxiv 2020.07.15.20151852; doi.org/10.1101/2020.07.15.20151852 (preprint).
5. University of Oxford. Statement from the chief investigators of the Randomised Evaluation of COVid-19 thERapY (RECOVERY) Trial on lopinavir-ritonavir. [Statement] 2020 Jun 29; https://recoverytrial.net/files/lopinavir-ritonavir-recovery-statement-29062020_final.pdf.
6. Sanofi. Sanofi and Regeneron provide update on Kevzara® (sarilumab) Phase 3 U.S. trial in COVID-19 patients. [Press release] 2020 Jul 2; https://sanofi.com/en/media-room/press-releases/2020/2020-07-02-22-30-00.
7. Roche. Roche provides an update on the phase III COVACTA trial of Actemra/RoActemra in hospitalised patients with severe COVID-19 associated pneumonia. [Webpage] 2020 Jul 29; https://roche.com/investors/updates/inv-update-2020-07-29.htm.

COVID-19
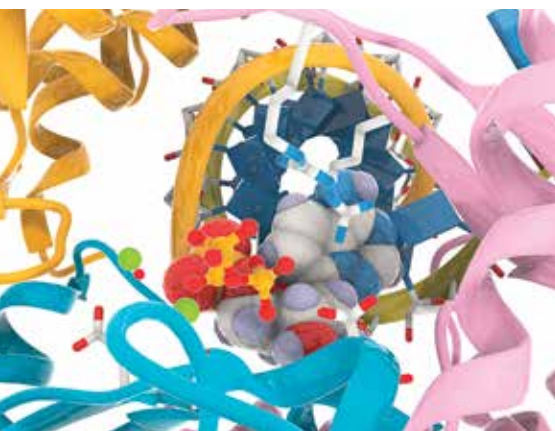
Figure. Illustration of remdesivir attached to SARS-CoV-2 RNA-dependent RNA polymerase.

From NEJM Journal Watch

Remdesivir trial results published: the first 'ACTT'

In a large randomised, controlled trial, remdesivir improved time to recovery among hospitalised patients with severe COVID-19.[1]

The US National Institutes of Health sponsored the Adaptive Covid-19 Treatment Trial (ACTT-1), a placebo-controlled, randomised trial of remdesivir for treatment of COVID-19. Unpublished results were announced previously, but now the eagerly awaited details, including important subgroup analyses, have been published. Patients hospitalised with COVID-19 and evidence of lower respiratory tract involvement were enrolled between 21 February and 19 April, 2020. Participants were randomised 1:1 to receive intravenous remdesivir or placebo for 10 days or until discharge. Preliminary results from 1059 participants are now reported. (Additional follow-up is ongoing.)

Participants in the remdesivir group had a shorter time to recovery than those in the placebo group (11 *vs* 15 days; rate ratio for recovery, 1.32). The benefit was most apparent in participants who were on supplemental oxygen but not intubated (rate ratio for recovery, 1.47). Among those on mechanical ventilation or extracorporeal membrane oxygenation at time of enrolment, time to recovery was not different between the remdesivir and placebo groups

(rate ratio for recovery, 0.95), but the confidence interval was wide. Mortality estimates by day 14 were nonsignificantly lower in the remdesivir group than in the placebo group (7.1% *vs* 11.9%). Rates of kidney and liver adverse events were similar in the remdesivir and placebo groups.

Comment by Professor Rajesh Gandhi

This large placebo-controlled trial supports the use of remdesivir in hospitalised patients with severe COVID-19. The benefit in improving time to recovery is most evident in those who are on supplemental oxygen but not intubated. Possibly, people who are mechanically ventilated also would derive benefit, but these preliminary results do not show an impact, perhaps because follow up was too short. (Mechanically ventilated patients take longer to recover than less ill patients.) As for many infectious diseases, starting antiviral therapy before illness has progressed too far may be most likely to help, but more data and longer follow up on critically ill patients are needed. Nevertheless, this trial is a landmark. For HIV, it took years to show a clinical effect of the first antiviral drug; for COVID-19, it took months. Clearly, much more must be done to improve outcomes for people with severe COVID-19 – morbidity and mortality are still too high – but this first 'ACTT' is a good start.

1. Beigel JH, et al. Remdesivir for the treatment of Covid-19 – Preliminary report. N Engl J Med 2020 May 22; doi.org/10.1056/NEJMoa2007764.

From NEJM Journal Watch

Dexamethasone: first drug found to reduce mortality in people with COVID-19

The reduction in mortality was greatest in those on mechanical ventilation; people who were not on oxygen did not benefit and might have experienced harm.[1]

Because patients with severe COVID-19 often have evidence of excess inflammation, intense interest has centred on whether anti-inflammatory medications, such as glucocorticoids, have a role in treating COVID-19. In the RECOVERY trial, patients hospitalised with COVID-19 were randomised to receive dexamethasone (6 mg/day for up

to 10 days; n=2104) or usual care (n=4321).

Mortality within 28 days was lower with dexamethasone than with usual care (22.9% *vs* 25.7%; age-adjusted rate ratio [RR], 0.83). Among patients receiving mechanical ventilation at enrolment, dexamethasone recipients had an age-adjusted 36% lower mortality than usual-care recipients (29.3% *vs* 41.4%; RR, 0.64). Those requiring supplemental oxygen (but not mechanical ventilation) had a smaller but still significant mortality difference between dexamethasone and usual care (23.3% *vs* 26.2%; RR, 0.82). Among patients not receiving supplemental oxygen, dexamethasone conferred no benefit over usual care; indeed, their results were consistent with potential harm (RR, 1.19).

Comment by Professor Rajesh Gandhi

This landmark trial was designed to evaluate the effect of treatment on major clinical outcomes, like death. It cannot address why dexamethasone worked, whether biomarkers can identify individuals most likely to benefit, and other questions.

Moreover, the mortality in this trial was higher than what is being seen in the current stage of the pandemic, toxicity information is not presented, and the results pertain to only hospitalised patients; ambulatory patients should not receive dexamethasone. Nevertheless, the findings support an emerging paradigm for how different therapies affect COVID-19. The antiviral remdesivir is most beneficial in people with severe COVID-19 who are not yet critically ill, suggesting an important role for viral replication in this disease stage.[2] By contrast, dexamethasone's largest impact is in critically ill people, suggesting that excess inflammation drives much of the damage at this stage. Trials are underway to assess the combination of antiviral and anti-inflammatory therapies in people with severe COVID-19.

1. Horby P, et al. Dexamethasone in hospitalized patients with Covid-19 – Preliminary report. N Engl J Med 2020 Jul 17; doi.org/10.1056/NEJMoa2021436.

2. Beigel JH, et al. Remdesivir for the treatment of Covid-19 – Preliminary report. N Engl J Med 2020 May 22; doi.org/10.1056/NEJMoa2007764.

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From NEJM Journal Watch

What's the duration of immunity to SARS-CoV-2?

Individuals with mild COVID-19 infection have a rapid decline in SARS-CoV-2 antibody levels.

One of the many still unanswered questions regarding COVID-19 is the duration of protective immunity following infection. A recent report from China indicated that individuals with asymptomatic COVID-19 had a less robust immune response to SARS-CoV-2.[1] California investigators now report further longitudinal data on antibody levels after mild COVID-19.[2]

Thirty-four individuals with mild COVID-19 (30 that were polymerase-chain-reaction assay confirmed) had serial anti–SARS-CoV-2 receptor binding domain IgG levels determined at a mean of 37 and 86 days after symptom onset. The estimated mean IgG half-life was 36 days.

Comment by Professor Richard Ellison III
The finding of a relatively short anti–SARS-CoV-2 IgG half-life in these two reports has received substantial coverage in the lay press and does raise concerns regarding the duration of protective immunity that is present both after infection and with a COVID-19 vaccine. Still, the present report did not directly assess neutralising antibodies, and neither this nor the report from China assessed either T-cell mediated immunity or the potential for an anamnestic response to this virus.

1. Long, Q, et al. Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections. Nat Med 2020; 26: 1200–1204.
2. Ibarrondo FJ, et al. Rapid decay of anti–SARS-CoV-2 antibodies in persons with mild Covid-19. N Engl J Med 2020 Jul 21; org/10.1056/NEJMc2025179.

Recovering from COVID-19: the long road ahead

A pattern of longer-term symptoms likely to be experienced by survivors of COVID-19 is emerging.[1]

Fatigue, breathlessness, psychological distress and general decline in quality of life are among the longer-term symptoms likely to be experienced by patients after hospitalisation for COVID-19, a UK study has reported.

The study, published in the *Journal of Medical Virology*, followed 100 patients recovering from COVID-19 four to eight weeks after discharge from a large tertiary teaching hospital. Patients were contacted by phone by the hospital's rehabilitation team and asked about their recovery and persisting symptoms.

Thirty-two of the patients had been treated in the intensive care unit (ICU group; median age, 58.5 years) and 68 had not needed ICU care (ward group; median age, 70.5 years). Most patients had had respiratory dysfunction requiring oxygen or noninvasive ventilation; only one had been intubated.

Fatigue was the most prevalent symptom. More than 60% in the ward group had fatigue, with one-third saying it was moderate or severe. In the ICU group, 72% reported fatigue and more than half said it was moderate or severe.

Breathlessness was the next most common symptom, affecting 65.6% of the ICU group and 42.6% of the ward group, and the third most common symptom, psychological distress, was reported by 46.9% of the ICU group and 23.5% of the ward group.

The researchers found a clinically significant drop in quality of life (measured by the EuroQol-5 Dimension). More than two-thirds (68.8%) of the ICU group and almost half (45.6%) of the ward group said their overall quality of life had deteriorated. At the time of the interview, 60% of the ICU group and 15% of the ward group were too sick to return to work.

Symptoms relating to communication, voice, swallow and laryngeal sensitivity (including persistent cough) were more common in the ICU group than the ward group.

The researchers said the greater prevalence of symptoms in almost all reported symptom domains in the ICU group, despite being a younger, less comorbid group, was in keeping with the postintensive care syndrome.

They called for rehabilitation care for COVID-19 survivors to be need-focused, delivered by specialist multidisciplinary teams and planned for the longer term.

Comment by Dr Renae McNamara
Nine months after the first report of SARS-CoV-2 infection, evidence of the sequelae of COVID-19 in the recovery period is starting to emerge which indicates a broad range of symptoms and impairments persisting long after the infection, many of which may be amenable to rehabilitation. Profound fatigue and breathlessness dominate reports.

People with moderate or severe COVID-19 admitted to hospital will likely have received multidisciplinary rehabilitation during their inpatient stay. However, with 80% of people diagnosed with mild COVID-19, many people experiencing persistent symptoms and impairments in the recovery phase will be managed in primary care. There will be a period of natural recovery in COVID-19, where rest, pacing and a gradual increase in activity would be recommended. However, in people slow to recover or those with protracted symptoms or impairments beyond six to eight weeks, rehabilitation delivered in the hospital outpatient or community setting would be indicated (which could include telerehabilitation, especially in the case of positive infection). Older people and those with underlying diseases (such as cardiovascular disease, diabetes, chronic respiratory disease and cancer) are more likely to require intervention.

A comprehensive rehabilitation assessment will identify the person's main symptoms and impairments, and interventions can be tailored to address physical and mental treatable traits. Although trials of rehabilitation post-COVID-19 have yet to be published, consensus-based recommendations indicate the model of pulmonary rehabilitation may be suitable.

1. Halpin SJ, et al. Post-discharge symptoms and rehabilitation needs in survivors of COVID-19 infection:
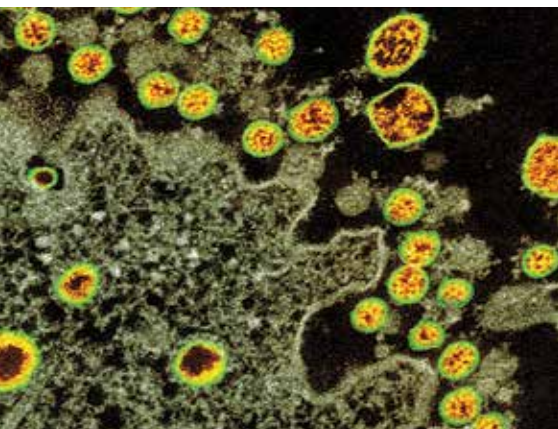
a cross-sectional evaluation. *J Med Virol 2020; doi.
org/10.1002/jmv.26368 (accepted article, peer
reviewed).*

Further reading

*Alison J, et al. Rehabilitation following COVID-19
in the pulmonary rehabilitation setting. Agency for
Clinical Innovation 2020. www.aci.health.nsw.gov.au*
*Greenhalgh T, et al. Management of post-acute
COVID-19 in primary care. BMJ 2020; 370: m3026.*
*Siordia JA. Epidemiology and clinical features of
COVID-19: a review of current literature. J Clin Virol
2020; 127: 104357.*
*Spruit MA, et al. COVID-19: Interim guidance on
rehabilitation in the hospital and post-hospital
phase from a European Respiratory Society
and American Thoracic Society-coordinated
International Task Force. Eur Respir J 2020; doi.
org/10.1183/13993003.02197-2020.*

Palliative care guidance for patients with serious COVID-19

*A European Respiratory Society taskforce
has provided recommendations on end-of-life
care for people with COVID-19.[1]*

The European Respiratory Society (ERS) taskforce conducted a survey of 90 international experts in respiratory palliative care to develop a set of recommendations on palliative care for patients with COVID-19. These recommendations were based on their clinical experience and indirect evidence.

The experts completed an online survey stating their agreement, or not, on 14 potential recommendations. At least 70% agreement was needed to provide a consensus recommendation. Most of the participants were experts in palliative care, respiratory medicine or critical care medicine.

The recommendations covered advance care planning (ACP); palliative treatment of breathlessness; clinician–patient and remote clinician–family communication; palliative care involvement; spiritual, psychosocial and bereavement care; and support for healthcare professionals.

Key recommendations included:
- family members/loved ones should be invited and supported (e.g. being provided with personal protection equipment [PPE] if indicated) to visit patients at the end of their life
- at the time of diagnosis of severe COVID-19 clinicians should routinely ask patients and loved ones about ACP
- patients with serious COVID-19 and distressing breathlessness despite optimal treatment of underlying causes should be given palliative treatment with low-dose opioids
- staff caring for patients with serious COVID-19 should receive training to optimise clinician–patient communication while wearing PPE
- family members/loved ones of deceased patients with COVID-19 should be offered bereavement support by healthcare professionals trained in palliative care or bereavement support
- healthcare staff caring for patients with serious COVID-19 should be offered psychological support to cope with their experiences.

The authors noted that future studies were needed to provide empirical evidence for the recommendations.

Comment by Associate Professor Natasha Smallwood

This paper provides helpful, best practice guidance on the key elements of palliative care that patients with COVID-19 may require. However, it is important to note that this guidance is not evidence based, being instead based on expert opinion. Furthermore, as the European taskforce notes, some recommendations are challenging to implement in practice due to limited availability of resources such as PPE or health professionals with the recommended skills.

In Australia since the start of the pandemic the National COVID-19 Clinical Evidence taskforce has been generating evidence-based, living guidelines, which are updated weekly, to support Australian health professionals to care for people with COVID-19. Importantly, this task force includes multiple primary care clinicians and has a dedicated palliative care and aged care panel, so that general and specific, evidence-based recommendations can include a palliative approach. Furthermore, the Australian and New Zealand Society for Palliative Medicine COVID-19 Special Interest Group (COVID-19 SIG) has generated nine guidance documents which cover multiple aspects of palliative care. The many palliative care guidance documents available (including this paper from the ERS taskforce) are important resources that will enable Australian health professionals to offer an individualised palliative care approach to people with COVOID-19.

The following websites may be of interest: https://covid19evidence.net.au and http://www.anzspm.org.au/c/anzspm?a=da&did=1005077&pid=1587788101.

*1. Janssen DJA, et al. COVID-19: Guidance on
palliative care from a European Respiratory Society
international task force. Eur Respir J 2020; doi.
org/10.1183/13993003.02583-2020.*

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