

'Do Not Attempt CPR': how the pandemic changed perceptions and practice

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Abstract

In this article, the authors look at the current literature and studies around 'Do Not Attempt Cardiopulmonary Resuscitation' (DNACPR) discussions and decisions, and how the global coronavirus disease (COVID-19) pandemic brought increased focus on this area of practice. For patients with incurable, advancing illness, having discussions to ascertain their views about CPR, and suggesting and instituting advance care planning measures such as 'Do Not Attempt CPR' forms, is becoming part of normal practice in medical settings. Yet all decisions must be individualized to each patient. There was evidence of increased decision-making regarding DNACPR during the pandemic, with concerns raised in the press and on social media. Here, we discuss how this has changed with the global COVID-19 pandemic, where concerns about blanket decision-making and lack of candour in discussing DNACPR decisions with patients and those close to them were raised.

Keywords Advance care planning; COVID-19; DNR (Do Not Resuscitate); Do Not Attempt Cardiopulmonary Resuscitation; frailty; harm; treatment escalation

Introduction

During the global coronavirus disease (COVID-19) pandemic, Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions came into focus in many countries, including in the media. There were wide-spread comments on social media and in the press about inappropriately applied DNACPR forms, and a

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Key points

- This article discusses topics that arose regarding DNACPR during the global COVID-19 pandemic
- It revisits the duty to consult on DNACPR decisions, balancing this with it being a clinical decision
- Frailty was not a consistently reliable risk factor for subsequent hospital mortality during the pandemic
- Communication relating to DNACPR with patients and with those close to them was variable in many areas of practice, with examples of good and bad practice

lack of keeping patients and those close to them in the picture about these decisions. The Care Quality Commission for England also published a report that found poor recording of DNACPR decisions, with ambiguous communication between healthcare professionals.

In-hospital cardiac arrest was relatively common for patients on intensive care units (ICUs) who had COVID-19 and resulted in very poor outcomes. In a study from the USA, 701 out of 5019 (14.0%) patients with COVID-19 on an ICU had a cardiac arrest, with just over half being given CPR (400/701, 57.1%). Of these patients, 7% survived, with normal to mildly impaired neurological status, to hospital discharge.¹ Furthermore, usual practice during a cardiac arrest was complicated by concerns about the potential infection risk associated with aerosol-generating procedures.

Studies looking at DNACPR during the pandemic

In one UK study, early DNACPR decisions during the COVID-19 pandemic were associated with older age, lower performance status, active malignancy, chronic lung disease and severe illness, and were inversely proportional to the number of patients of Asian ethnicity.² Many patients with an early DNACPR decision recorded in their notes went on to be given other types of life-saving intervention (but not CPR) and most survived to 30 days.

A study at a large hospital in Birmingham, UK, compared DNACPR decisions before and during the pandemic and found that discussions involving the patient remained similar during COVID-19 compared with previous years (95.8% versus 95.6%; $p = 0.871$), whereas significantly fewer discussions took place with relatives (50.6% versus 75.4%; $p < 0.001$).³ It is well known that visiting was significantly impacted during the pandemic, and this may have led to reduced opportunities for these discussions to take place.

Another study looked at the documentation of DNACPR orders during and before the pandemic specifically in elderly patients. It showed that the prevalence of DNACPR decision documentation in patients aged ≥ 65 years with COVID-19 showed a 2.4-fold increase compared with those without COVID-19 admitted during the same period, and a 4-fold increase in this group compared with before the pandemic.⁴ These figures suggest that decision-making regarding resuscitation status was

happening more frequently across the board during the COVID-19 pandemic, and specifically in the elderly population.

Clinical frailty, treatment escalation plans and CPR

One area that became controversial during the pandemic in the media was the Clinical Frailty Score (CFS). The CFS is a 9-point scale that quantifies frailty based on function in individual patients. It is complemented by a visual chart to assist with the classification of frailty. Higher scores indicate increased frailty and associated risks. Multiple studies (see further reading) have confirmed that the CFS is able to identify cohorts of hospitalized older people at risk of adverse outcomes, such as increased length of stay, functional decline, institutionalization and mortality.

During the COVID-19 pandemic, a meta-analysis study showed that a higher CFS was associated with increased mortality in a linear fashion. More specifically, for patients with COVID-19, each 1-point increase in the CFS was associated with a 12% increase in mortality.⁵

Conversely, another study looked at mortality and associated clinical frailty, as measured by the CFS in an English hospital trust. This single-centre, retrospective cohort study examined COVID-19-related mortality using electronic health records, for older people (≥ 65 years) with frailty, hospitalized with or without COVID-19 infection. COVID-19 was associated with mortality rates of 60% in hospitalized older people. Illness severity and comorbidities, but not frailty, slightly increased the risk of dying from COVID-19, calling into question the usefulness of the CFS as a measure to predict a natural anticipated death in this cohort.³

A further study based in ICU (Langlais et al., see Further reading) suggested that a combination of the CFS and Sequential Organ Failure Assessment (SOFA) score did not significantly improve the performance of the SOFA score alone in predicting hospital mortality in critically ill patients aged ≥ 65 years. This result was consistent with the multivariate analysis, which revealed that frailty at admission was not an independent predictive factor for subsequent hospital mortality.

Concerns of a 'blanket application' of DNACPR forms during the COVID-19 pandemic

One concern raised by the media during the COVID-19 pandemic was that some people had been given DNACPR forms simply because they had a learning disability. UK charity Mencap also reported that it had received reports in January 2021 from people with learning disabilities who had been told they would not be resuscitated if they were taken ill with COVID-19.⁶

Additionally, the parliamentary Joint Committee on Human Rights reported that they had 'received deeply troubling evidence from numerous sources that during the Covid-19 pandemic DNACPR notices have been applied in a blanket fashion to some categories of person by some care providers, without any involvement of the individuals or their families'.

Compassion in Dying reported that calls to their information line increased by 48% during COVID-19, with many of the calls coming from people seeking support to protect themselves from CPR. However, the, charity had also received some concerning reports that 'Advance Decisions to Refuse Treatment have been unlawfully completed in a blanket way by care home staff, on behalf of residents who lack capacity to make the decisions within them'.

The concerns highlighted above were considered by the Care Quality Commission in England, who then conducted a review of DNACPR form use during the pandemic. They did not find evidence that there had been a national blanket approach to DNACPR. However, they acknowledged that there was undoubtedly confusion at the outset of the pandemic and a sense that some providers felt under pressure to ensure that DNACPR decisions were in place.

Abel et al. looked at how advance care planning principles can apply to a better use of digital technology, including when making decisions about CPR.⁶ They also applied principles of compassionate community working, as well as not having a sole focus on DNACPR but looking more generally at patient preferences towards the end of life.

A paper from 2023, which looked at the national NHS Wales DNACPR policy, reiterated its inherent triggers for considering CPR and DNACPR, namely when a naturally anticipated and accepted death (NAAD) is predicted in the coming 6 months, for instance in patients with multiple life-limiting conditions.⁷

Discussion

The COVID-19 pandemic influenced the use of DNACPR decisions, in terms of both the frequency of their use and the reasons for decision-making. There are positive aspects to the increase in early decision-making for DNACPR, including more open and honest discussions early on in a patient's journey. However, although discussions with patients were found to be consistent, discussions with family members were reduced, and the cause for this is likely to be multi-factorial. Restrictions on visiting in hospitals, hospices and care homes may have reduced the opportunity for discussions to be held with individuals close to the patient.

The effect of the media portrayals of DNACPR decisions during the pandemic is hard to gauge, but reassurance is taken from the Care Quality Commission review and evidence suggesting there was no blanket approach during the pandemic. Cases of poorly conducted decisions were the exception and not the rule, and overall the impact of COVID-19 on DNACPR discussions was not an overtly negative one, and may have even led to some positive outcomes. ◆

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