

# A new communication tool to help conversations when staff are wearing Personal Protective Equipment

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Dr Rachael Grimaldi

Senior Anaesthetic Registrar at Brighton and Sussex University Hospitals NHS Trust, UK

## The story behind CARDMEDIC™

I am an NHS anaesthetist at Brighton and Sussex University Hospitals NHS Trust, on maternity leave (with three children under the age of 4 years) and currently stuck abroad in the US. Unable to be patient-facing during the COVID-19 pandemic, I have had to re-evaluate my initial plans to return to work. I have felt desperate to do something to help, and whilst keeping up with the news I was inspired by an article I read about a critically ill intensive care patient who was terrified when he couldn't understand what the healthcare team were saying to him through their Personal Protective Equipment (PPE – face masks, visors, hoods, etc).

PPE creates a barrier to communication and so much is lost. Not only verbal communication, but also non-verbal cues, so vital to effective communication – the ability to lip read for those that rely on it and the human connection behind the mask. As such, there is a significant risk of miscommunication of vital information between the patient and healthcare provider, presenting a considerable patient safety issue.

What started out as a simple thought – “would healthcare staff be able to write down what they need to say on a piece of paper and show it to the patient?” – within 72 hours turned an A-Z index of digital flashcards covering a wide range of topics, and [www.cardmedic.com](http://www.cardmedic.com) was launched.

CARDMEDIC™ is a free online resource for all to use. Since it was launched on 1 April 2020, CARDMEDIC™ has been accessed by over 7,800 users with over 31,000 page views across 50 countries and 6 continents, including across Europe, Australia, New Zealand, United States, Canada, Asia and Africa. It has also been shared by the Defence Medical Services to over 70 senior clinicians across all specialties in multiple Trusts across the UK.

It is simple to use. Healthcare providers can access [www.cardmedic.com/flashcards](http://www.cardmedic.com/flashcards) either on their institution's or the patient's smart phone, tablet or desktop. Choose the flashcard you would like to talk to about and display it on the screen to the patient. Just ensure the website

is displayed in the relevant language; there are 10 to choose from at the moment (thanks to Weglot) – this option is currently at the bottom right hand side of the page. If your patient is too unwell or unable to read, or partially sighted or blind, there is also a read-aloud option (thanks to SiteSpeaker) – choose the blue “play” button at the top right of the screen.

Devices can be placed in freezer bags that are compatible with gloves and can be disposed of between patients, although we are aware of the environmental impact of this. Alternatively, some places have devices that they disinfect by wiping clean between patients. For those who prefer a paper-based approach, the cards can be printed and laminated; write-on, wipe-off. We are working on making these available as downloadable PDFs.

With the re-deployment of vast numbers of healthcare and allied healthcare professionals, together with those returning to practice, there are a large number working outside their usual realm of clinical practice. This presented a further issue; staff may feel uncertain of how to talk to patients about certain aspects of their care in simple language if it is an unfamiliar area of work for them. The flashcards can also act as a reminder or prompt in these circumstances and another layer of maintaining patient safety.

Launch of a free app, compatible with android and iOS/Apple, is imminent. A huge thanks to Phil at A Million Monkeys for working tirelessly over the last couple of weeks on this. The app should not only improve accessibility for those in areas with little or no internet access, but also provide an immediately available source of flashcards that will be continually updated, without having to repeatedly download new versions from the app store.

Based upon my training in anaesthetics and as a part of this, experience in critical care, I wrote the majority of the CARDMEDIC™ content. I have had significant contribution both in terms of content and resources from specialist colleagues in critical care nursing, end of life and palliative care, radiography, DNAR, obstetrics, midwifery, speech and language therapists and learning disability nurses, with more to come. Whilst what we have prepared is not professing to be a “gold standard” in communication, it is based upon a wealth of combined experience, knowledge and an acceptable standard in clinical practice.

I am especially grateful to Ruth Parry and Becky Whittaker from the Real Talk team at Loughborough University, for collaborating with Kathryn Mannix, Lucy Selman and Charlotte Ede, to use their wealth of knowledge and experience to develop an extensive, sensitive and well worded “End of Life Care” section on the website.

There is much planned in way of development, in part shaped by the feedback we have received. For example, we are collaborating with Signly, SignLive and the Royal Deaf Association on integrating British Sign Language videos and also working on integrating illustrations to improve accessibility for users. I am delighted to have Scarlett Brandley, a Leeds University Medical School student, spending her elective with me working on it. CARDMEDIC™ should have a role to play after the pandemic in educational settings, for both healthcare and allied healthcare professionals, in training students how to talk to patients in simple terms about procedures and certain aspects of their care.

CARDMEDIC™ has been developed through a combination of extreme generosity of colleagues, friends, family, contacts, word of mouth and Twitter, as well as very much burning the candle at both ends seven days a week. When I started this, I thought I would share the site with a few friends and colleagues and it would hopefully help make a difference to a few patients. I never envisaged it would have grown so rapidly and at such pace.

I am so overwhelmed by the time, advice, and service donated free of charge from so many different people – organisations, colleagues, friends and family. There are too many people to thank here! To mention a few – The Patient Safety Learning group have been championing it and have been a great source of support. My friends and colleagues at Brighton and Sussex University Hospitals NHS Trust and the University of Brighton have been incredibly supportive and pro-active – I am very grateful. The Department for International Trade has been fantastic and introduced me to so many different contacts across a wide range of organisations, including Grow Global and Signly. A Million Monkeys has worked tirelessly on developing the app, which is an exciting next step in improving accessibility. The Defence Medical Services have shared it across the UK. The Academic Health Sciences Network (AHSN) have also been a really useful resource, especially with advice on possible funding streams. Dr Andy Tagg at Don't Forget the Bubbles in Australia has been brilliant and we are looking forward to working together, along with Jane Stokes, to translate it into a further 15-20 languages. Having never been on Twitter before, the networking opportunities have been phenomenal and so many people have come forward too, to offer their time and expertise with various clinical sections of the site. I could go on!

All this has been achieved without funding. It is so important for this to remain free for the end users: the patients and the staff. We are actively looking for funding currently, as it is essential to enable development and continuation of the service.

We are regularly seeking feedback. It is essential this works on the frontline and are very grateful for all thoughts and feedback. If you have a moment, please either contact us via the website [<https://www.cardmedic.com/contact>] or via Twitter [@cardmedic]

## **About CARDMEDIC™ Founder**

Rachael Grimaldi is a senior anaesthetic registrar at Brighton and Sussex University Hospitals NHS Trust, UK. She is the founder of free digital communication tool and upskilling resource CARDMEDIC™. Rachael has a long-held interest in patient safety and communication, winning several prizes for previous work on developing a “Safer ICU Handover”; most notably the international Sashidharan prize at The College of Anaesthesiologists Annual Scientific Sessions Conference in Sri Lanka. She is also the Associate Medical Director for the Brighton Marathon and has led on the integration of a roadside Extra-Corporeal Membrane Oxygenation (ECMO) team into the Advanced Cardiac Arrest Team, as well as run the Brighton Marathon Research Group. In her spare time, she can be found running around after three very small children and a dog.