The role of PHEM teams on Prehospital Palliative care

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This essay is a reflective piece derived from work produced during an intercalated BSc in prehospital medicine at the institute of prehospital care and Barts and the London SMD. During this degree we had the opportunity to observe different prehospital teams including the London Air ambulance's (LAA) trauma team, MEDIC2 as well as their Physician response unit (PRU). This was a collaboration between Barts Health trust and LAA which allowed EM doctors to respond to patients in the community in a car arguably equipped to the same level as an A&E and manage these patients in the comfort of their homes. The following essay is a reflection of a case I observed with them which demonstrates the incredible effect these teams have on palliative care and elderly patients.

Understandably, due to the effects of COVID-19, the backlog of work meant that a significant portion of patients had been missed especially the elderly end of life (EOL) patients when GPs stopped making home visits at the height of the pandemic. As such, the PRU fulfilled the role of GPs for these patients and provided a safety net for them. However, the PRU is also often regarded as an 'A&E on wheels'(1) and as such have also been thought to be initially commissioned as an "admission avoidance unit." This controversial opinion had been established since the inception of the service yet it's ability to stop patients being admitted was solidified during the COVID-19 pandemic when the narrative shifted to the view that hospitals are definitively inappropriate for a large subset of patients especially the elderly and those at the end of their life. All bar 2 of the patients I attended with the PRU were EOL jobs and although we were not doing any specialist interventions, the emotional difference we were making to the individual and to their family, in my opinion, far outweighs the difference we can make by doing thoracotomies on the roadside.

In this section, I focus on one particular EOL job which resonated with me. We had been called to the family home of a 99-year-old female who was completely off baseline according to the family. She had retreated to her bed for 2 days and had not said or eaten anything with the occasional sip of water being allowed. The ambulance crew had told us that this patient was showing signs of being at the very end of her life. They handed over a picture of difficulty in breathing probably due to oedema in her chest and their plan was to convey her to hospital with the intention of giving her frusemide on arrival, a diuretic which offloads the oedema in the lungs. During the terminal stages of life, there are recognised signs in the literature(2,3) that indicate impending death:

- Mottled skin
- Confusion, disorientation and restlessness
- Urine becomes concentrated and suffer from incontinence
- Increased respiratory secretions (Death rattle)
- Cheyne-Stokes breathing
- Decreased oral intake

On examination of the patient, the PRU opinion was that she had a chest infection causing sepsis explaining the change in behaviour. As her family did not have access to an out of hours GP, The PRU crew were the only thing stopping their loved one from going to hospital and potentially not leaving. The PRU made the decision to treat for infection at home with IV antibiotics, Amikacin and Ceftriaxone, reviewing her the next day by the morning PRU car.

The Nuffield department of population health explores the risks of admitting elderly patients into the hospital. They describe how although hospital may appear to be the best place to care for someone, evidence shows that admitting the elderly leads to a more rapid physical decline making them more susceptible to hospital acquired infections leading to serious complications and potentially death. Due to limited visitation during COVID, many patients passed away in hospital without family and friends around them.(4) It is also reported that hospital admissions in the elderly significantly increases the risk of delirium, often leading to longer hospital stays compounding the previously described factors.(5) I realised that retrospectively, the PRU is the exact service she required – a hospital admission would have been completely inappropriate for the described reasons and there was no access to an out-of-hours GP, as such, she needed an "A&E on wheels."

Due to the increasing incidence of EOL jobs, the PRU have comprehensive EOL care standard operating procedures. The PRU EOL checklist is extremely controlled from the prescription of anticipatory medications to making sure the family understand the implications of a DNACPR. Palliative medicine is not a speciality we as medical students are particularly familiar with. I was particularly interested in the prescribing of anticipatory drugs. These terminal signs can be extremely distressing for patient and family alike – especially the 'death rattle' heard during the last moments of life. These anticipatory drugs are proactively prescribed with the intention of alleviating these signs and making the patient comfortable when they get nearer to the end of their life.

The prescription of these medications was done very sensitively with constant communication between the doctor and the family members to describe what he was doing alongside the decision to fill out the DNACPR. The interaction between them highlighted the importance of keeping the patient in the centre of their care plan and it taught me that although prehospital clinicians are known to 'reverse' death through innovative strategies and resuscitation techniques, this portion of the patient and clinician journey demonstrated that the simple human element of prehospital care is often more impactful on the patient. The government recently issued guidance by the leadership alliance for the care of dying people called 'One chance to get it right'. (7) They discussed 5 priorities for care that should be considered during the care of a dying patient:

 This possibility (dying) is recognised and communicated clearly, decisions made and actions taken in accordance with the person's needs and wishes, and these are regularly reviewed and decisions revised accordingly.

- 2. Sensitive communication takes place between staff and the dying person, and those identified as important to them.
- 3. The dying person, and those identified as important to them, are involved in decisions about treatment and care to the extent that the dying person wants.
- 4. The needs of families and others identified as important to the dying person are actively explored, respected and met as far as possible.
- 5. An individual plan of care, which includes food and drink, symptom control and psychological, social and spiritual support, is agreed, co-ordinated and delivered with compassion

These were born from the Francis inquiry into the Mid-Staffordshire crisis which highlighted an organisational structure that tolerated poor standards of care for the elderly and dying. Looking back, I can see how the crew worked seamlessly together using the SOP to ensure these priorities were reached. No complicated medicine was done, no electrolyte imbalances managed and no high-level resuscitation techniques used. Simple human interaction, done well, was the only medicine that needed to be done.

I looked this patient up the next day after PRU attended their follow-up appointment. This patient was back to her baseline – Despite being a terminal patient, the PRU found her gardening outside and playing with her grandchildren. It was truly satisfying to read her notes knowing that the difference we made to her and her family meant that they could enjoy her remaining years with each other in dignity. Prehospital medicine often has reputation of being a high acuity specialty, albeit true for some patients, this only constitutes a small proportion of cases. A significant subset of the jobs attended by prehospital clinicians are jobs requiring minimal physical intervention, which I initially naively thought meant we weren't needed. This case is not unique and prehospital emergency medicine clinicians across the country have numerous examples of cases like these. Sadly, despite the best efforts of community palliative care teams, and GPs the system is stretched meaning patients like these may easily end up admitted to hospital. The provision of a service which provides high quality palliative care by experienced clinicians, not necessarily doctors either, can help bring forward that specialist treatment to the patient's home giving them and their family the dignified death they deserve.

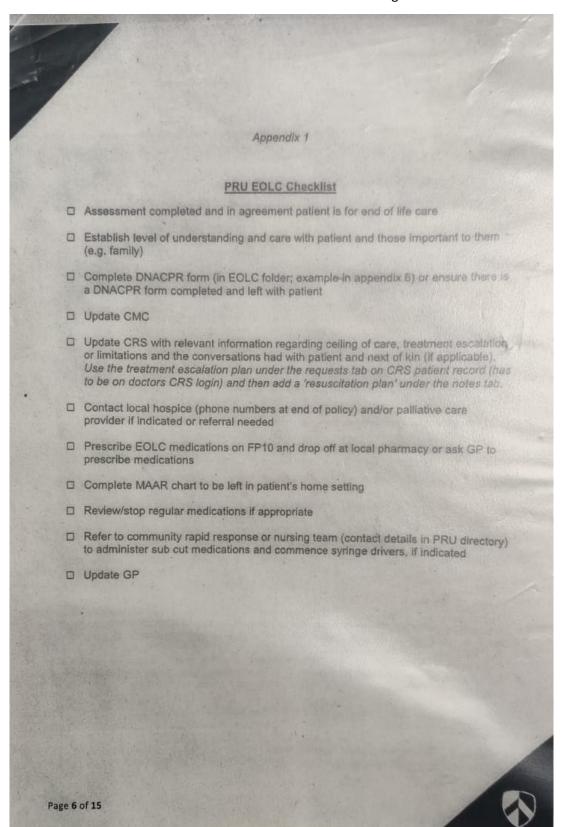
The experiences I was fortunate to have with the MEDIC2, PRU and LAS teams have shown me that the best medicine is done in the interest of the patient and this often translates to removing your biases as a clinician to see every illness as something that needs to be cured, and listening to the wishes of the patient. I find that this often makes the biggest difference for the patients and their families compared to what we think the patient needs.

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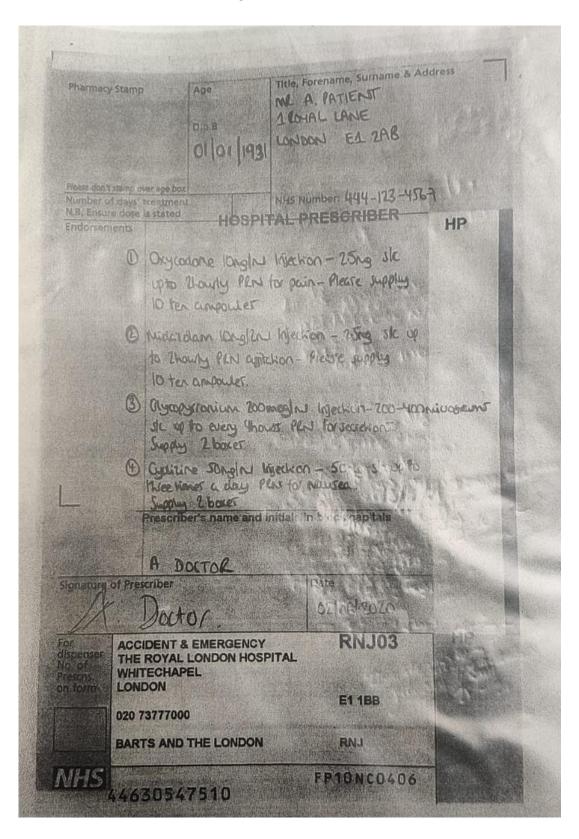
Appendix A

The PRU end of life checklist. Picture of document was obtained during PRU observer shift.



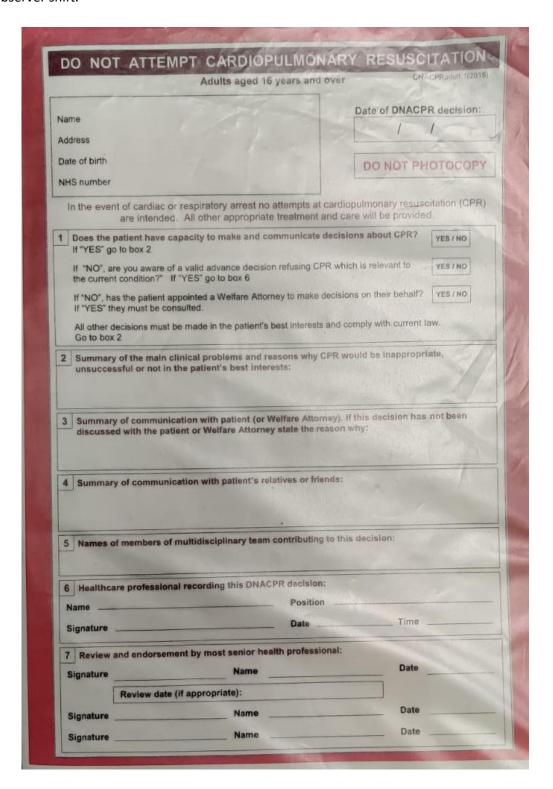
Appendix B

A template FP10 prescription, copied out by doctors should they need to prescribe anticipatory medications. Picture of document was obtained during PRU observer shift.



Appendix C

A copy of the 'Do not attempt cardiopulmonary resuscitation' form. Picture of document was obtained during PRU observer shift.



Appendix D

An advisory table in the Royal London hospital resus advising clinicians to the types of trauma calls that can be put out and the resources mobilised to each. Photo taken during RLH resus shift.

ype of call	Mechanism	Who will attend?
Adult Trauma Call	Activated in the absence of anatomical or physiological injury at the discretion of the ED Trauma Team Leader. ie pts suitable for a trauma unit, being trauma called due to mechanism of injury	Trauma Team Leader (ED Cons) Ortho SHO, Surg SHO, ED SHO, ED nurse, Ed Radiographer
Paediatric Trauma Call	Activated for paediatric patients with evidence of anatomical or physiological injury	Trauma team leader (ED), paediatric anaesthetist on call, paeds surg SpR, ortho Fello/SpR Paeds SpR, Paeds SHO, Resus N1, Paeds ED Resus Nurse, Trauma ODP, ED radiographer, After Trauma Team Member
Advanced Trauma Call	For patients with evidence of anatomical of physiological injury For example: All HEMS, silver trauma, stabbings to chest & torso	Trauma Team Leader (ED Cons) Anaesthetist (TAG daytime),Trauma ODP, Surgical SpR & SHO, Ortho Fellow/SpR & SHO, Resus N1, Resus Nurse, ED Radiographer, After Trauma Team member
Code Red	For patients with physiological instability requiring (or likely to require) massive haemorrhage protocol & damage control surgery or radiological intervention	Trauma Team Leader (ED Cons) Anaesthetist (TAG daytime), Trauma ODP, Cons Trauma surgeon, Surgical SPR & SHO, Ortho Fellow/SpR & SHO, Resus N1, Belmont nurse, Resus Nurse, Radiologist (45709), ED Radiographer, After Trauma Team member
Code Black	For patients with significant head trauma, likely to require emergency neurosurgery following CT imaging	As above as well as Cons Neurosurgeon (9-5), Neurosurgical SpR & SHO