HW 10: Problem Statement for Final Assignment

Submit a problem statement 2-3 lines in length (clear and concise) where you state a complex human challenge you want to analyse for the final paper.

You will also need to state if you will be working alone or in a pair (groups larger than that will not be considered).

Overload in Emergency Departments in Australian Hospitals

Problem Statement

The number of patients presenting to Emergency Departments in Australian hospitals has increased rapidly in recent years. The number of Emergency Department staff who are quitting due to burnout has also increased. Why are Emergency Departments in Australia overwhelmed by the number of patients presenting to them, and how can this problem be solved effectively and safely?

Current System Dynamics

Most Emergency Departments (EDs) in Australia public, and funded by Medicare, Australia's universal health care system[1]. Emergency Departments are routinely overloaded, with long waiting room times, overburdened staff, and inability to deliver care to sick patients. In my own city, the Emergency Physician at the Royal Melbourne Hospital said, "There are days where I'm a bit frightened to come to work – that I don't quite have enough in me."[2]. I work in the emergency department myself as a resident doctor, and for my final project I have proposed an intervention which would alleviate the staff and resource shortage in the Emergency Department. My proposal is that General Practitioners ("GPs" - otherwise known as primary care or family medicine practitioners in the USA) should be incorporated into the Emergency Department within a public-private partnership, so that patients presenting to the Emergency Department have the option of seeing an "Priority Care General Practitioner" rather than waiting to be seen by an Emergency Physician. Although I'm analysing the problem locally, the analysis and intervention are applicable to every country which is dealing with the same issue.

A patient's journey to the Emergency Department begins in the community, when they become aware of a symptom that causes them concern. Many patients ignore symptoms, or initiate their own treatment, but they will typically seek medical care once their concern breaches a threshold. In Australia, they have at least three options. They can call a nurse via the Nurse-On-Call service,

[1] https://www.servicesaustralia.gov.au/about-medicare?context=60092
[2] https://www.9news.com.au/national/inside-the-overwhelmed-emergency-departments-at-melbournes-busiest-hospitals/c0a12023-bc6b-4065-89f9-4dd5b554f559

although they can only receive advice and the advice is typically "go to the emergency department"[3]. They can also see their own GP[4], if that GP is available, which may require the symptoms to arise within the GP's working hours and for their GP to have an available appointment. Otherwise, the patient can present directly to the Emergency Department waiting room[5].

Once the patient presents to the Emergency Department, the hospital becomes responsible for them. For medicolegal reasons, all patients who arrive at the Emergency Department will eventually be assessed by an Emergency Physician, no matter how minor or trivial their illness. If the patient's illness is minor then they may face an extended stay in the waiting room. Eventually, patients are seen by an Emergency Medicine physician, where they are given a full assessment including past medical history, history of symptoms, a physical examination and then tests and radiology. Once that assessment has taken place, then the patient's disposition can be established[6] as either appropriate for discharge to the community, admission to hospital, or possibly for resuscitation then and there in the Emergency Department.

The role of the community GP in assisting the Emergency Department is of great benefit, but essentially redundant. Since acute illnesses arise quickly, and there is no guarantee that the patient has even seen a GP regarding their illness, Emergency Department staff have developed the capability of making an assessment with or without the assistance of a GP.

However, if the GP is playing a role, then they can positively impact the patient's assessment at each key juncture.

GPs may give the patient an "action plan[7]", which provides them with written instructions that permit them to increase medication doses or enact other changes in their own treatment in the presence of worsening symptoms. An example of this is the Emphysema Actions Plan[8] which assists patients with smoker's lung to self-initiate a short course of oral corticosteroids if the need arises. These action plans prevent presentations to the Emergency Department by empowering the patient to treat themselves. Sometimes the patient will see the GP and the GP will organise to treat them then and there in the clinic, and manage the acute illness in the community, with their own follow-up.

Many patients are sent to the Emergency Department from the GP's office, due to concern from the GP[9] that they need additional assessment by the Emergency Medicine physician, or hospital-only tests and radiology. These patients usually arrive well-equipped with a letter from the GP describing past medical history and symptoms. Therefore there is considerable reduction in the work of the Emergency Medicine physician, who can rely upon the assessment started by the GP. If the patient's disposition is found to be that they can be discharged, it is of great benefit to everyone that the GP is able to follow up with the patient a few days later with instructions from the Emergency Physician. This is an example of "closing the loop"[10].

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[3] https://www.healthdirect.gov.au/nurse-on-call
[4] https://www.racgp.org.au/the-racgp/about-us/about-the-racgp
[5] https://www1.racgp.org.au/newsgp/professional/why-do-patients-go-to-emergency-rather-than-to-the
[6] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5051606/
[7] https://www1.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-chronicdisease-pdf-infosheet
[8] https://lunghealth.lungfoundation.com.au/wp-content/uploads/sites/8/2019/04/Information-paper-COPD-Action-Plan-Feb2019.pdf
[9] https://www.racgp.org.au/getattachment/d7f25acf-3d22-41c4-87c6-95e3431ffca9/attachment.aspx
[10] https://innovation.cms.gov/files/x/tcpi-san-pp-loop.pdf

Proposed intervention: Priority Care GPs

The most effective way to reduce overload in the Emergency Department is to reduce unnecessary presentations. Unnecessary presentations occur for two main reasons. Patients with illnesses that could have been treated earlier in the community by their GP allow their condition to deteriorate to the extent that they need to be assessed in the emergency department. Alternatively, patients may have concerns about a minor acute illness, where the illness could have been treated by the GP, but their concern is such that they make the decision to be assessed in the Emergency Department. In both cases the absence of GP care results in the patient consuming Emergency Department resources.

Therefore, my proposed intervention is the deployment of "Priority Care GPs" into the Emergency Department. The Victorian government has committed funds to a program of similar concept[11], which creates community GP consult centres near Emergency Departments so that patients can be seen by a GP at short notice rather than present directly to Emergency.

My proposal extends on the current plan in that I would seek to place Priority Care GPs within the Emergency Department itself. This resolves the foremost medicolegal issue, which is that the hospital has an obligation to have the patient assessed by a doctor once they have presented, because if the triage nurse makes the assessment that the illness is low acuity, then the patient can be assessed by a Priority Care GP whilst still within the hospital.

Moreover, there is a resource advantage to placing Priority Care GPs within the hospital. Most hospitals have outpatient clinics which are currently only used for a few hours per day, and which are equipped almost identically to a GP consult room. Therefore, a Priority Care GP within the hospital would make use of consult rooms already available, and in a manner which utilises them around the clock.

In terms of funding, I believe that Priority Care GPs should have personal discretion as to whether to see patients for free and be renumerated by the Medicare universal health care system, or whether to charge patients a fee to be seen "privately", where that fee is often covered by the patient's medical insurance. The advantage to allowing GPs to choose whether to do this is that it creates a financial incentive for Priority Care GPs to treat patients in the Emergency Department (as opposed to their own clinics) because the financial rewards are greater and the overheads are minimal. In that way, conditions are established such that Priority Care GPs are incentivised to work in the Emergency Department at the very times that there are the most patients to be seen. The obstacle that must be overcome with regard to this arrangement is the objection on principle that some patients in the waiting room will be seen by a doctor earlier than others if they are able to pay a private fee. Although the rebuttal there is that all patients, public or private, will be seen in the order that they presented if they choose to be seen by an Emergency Physician, rather than a Priority Care GP.

This proposal is unlikely to violate medical regulations and restrictions; many GPs already work within Emergency Departments, in arrangements where they are technically supervised by the Emergency Physician in charge of the department. My proposal would mean that GPs are allowed to treat patients independently of the Emergency Physician in the case that the severity of the illness is low and the treatment is within their scope of practice.

[11] https://www.premier.vic.gov.au/priority-primary-care-centres-ease-demand-hospitals

Ultimately, the deployment of Priority Care GPs within the Emergency Department will increase the number of patients whose acute illness is managed by the GP, whilst maintaining the same standard of care that would have otherwise been provided by the Emergency Physician.