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How do we solve problems facing the NHS?

Reducing Hospital waiting times.

The National Health service is the government-funded public health service that operates in England, Scotland, Wales and Northern Ireland. Through the years, the NHS has faced various challenges; the more recent ones include staff shortages, long waiting times, bed space shortages etc. This essay aims to present a possible solution to the problem of long hospital waiting times.

This Idea focuses on methods to move part of the pressure of health service away from the actual hospital building as well as improving the organization and efficiency of the standard hospital. This would be done by having a central operating system which manages the affairs of the hospital and controls transmission of data to various personnel in the hospital.

The first phase of implementing this Idea would begin by giving ambulance workers and paramedics the training and authorization to carry out diagnosis and analysis of patients. As this analysis is carried out, the data is inputted into a database and a patient profile is progressively built up. The way this data is used is dependent on the situation and is determined by the paramedic in charge.

If the patient is in a critical state or has suffered a serious injury and immediate surgery or treatment is needed, all relevant doctors who will be performing the surgery will be informed as soon as the paramedic arrives at the scene. This is initiated by the paramedic typing in a short description of the situation such as "gunshot wound to chest" or "heart attack". The system will already be programmed to know the various medical personnel that are

required to perform this operation and will then inform one of each type who is not preoccupied or pre-booked so that they begin to prepare for the surgery. The patient profile is continually updated with new information so that extra doctors if needed are notified and that all the doctors currently assigned to the case are kept informed of all development. Hence, Ideally, by the time the ambulance arrives at the hospital, the doctors will already be fully prepared and briefed.

If the situation is less extreme and more information is needed before a definitive diagnosis can be given, the patient profile is used to identify further tests which must be carried out. These tests are specified by the operating system, but the paramedic may also add tests that he or she feels is necessary but have been excluded. As soon as a test is specified or added, appointments are made with the relevant hospital departments. The order of the tests will be determined by the number of people currently waiting for a test as well as any medical restrictions on the order of the tests. Specialists will be stationed at each department and will need to update the patient profile with the test results as soon as they are released. One of the doctors who has had access to the patient profile will then give a short consultation to the patient who will then either be discharged or given treatment by a doctor or group of doctors who would have already been informed beforehand.

For situations where people do not come in through ambulances, they will be urged to call the hospital and give a brief description of the problem. This description will then be used to start a new patient profile and the medical staff who will definitely be needed, as well as a nurse who will receive the patient and complete the profile, will be informed.

A friend of mine recently damaged his hip. A person nearby called an ambulance and they waited sometime before it arrived. The ambulance took him to the hospital but had to wait over an hour in an ambulance queue. He was eventually admitted to the A&E and then waited another two and a half hours for a doctor to examine his hip. The doctor then sent him to get an X-ray and then after the

results were released, the doctor spoke with him, gave him crutches and made future appointments. All in all, the time from ambulance arrival to discharge was about five hours. Under the new system, the ambulance would have arrived, examined him and determined that he needed an X-ray before he reached the hospital. Upon arriving at the hospital, he would be taken directly to the X-ray ward, done the X-ray and had a consultation with a doctor who had already seen his patient profile. I estimate the whole process from ambulance arrival to patient discharge would have then been about an hour and a half: almost four times shorter than the time under the current system.

These are just a few applications such a system can have. It can be improved to take blood samples and carry out automated tests, drive ambulance cars to meet patients and provide support to doctors during treatment and surgery.

The second part of the idea deals with benign complaints which do not require direct contact with a doctor to solve. Babylon Health has developed an app which can accurately diagnose many medical issues by asking the patients a few questions. If such a service were to be released to the general public, it would greatly reduce the number of people coming to the hospital and therefore significantly shorten waiting times. The app could even be further developed so that it is able to identify skin diseases and injury type by taking a picture.

These ideas all aim to reduce hospital waiting time by removing some of the health services from the building itself and diffusing responsibility between doctors, nurses, paramedics and the patients themselves. They also aim to improve the organization of the hospital and the speed at which information is transmitted within the hospital system, thereby increasing the overall efficiency and hopefully reducing the hospital waiting times significantly.