Defibrillators for D&H

1. Summary of why I had reservations about public access defibrillators (PADs) in D&H

PADs are great in places where:

(i) There are hundreds of people a lot of the time or thousands some of the time e.g. stadia, shopping centres, airports, rail stations, sports halls.

(ii) People are trained and regularly retrained to use them and are fit enough to do cardiopulmonary resuscitation (CPR).

(iii) Professional help can arrive within 10 minutes or less – e.g. in towns and cities.

There is no doubt about that.

Where there is doubt is in a community such as ours where households are spread out and are occupied mainly by only two people - average occupancy 2.4 persons, including children under 16 – 12% of residents (2011 Census). The non-victim resident is likely to find it hard to recruit help from outside the house to fetch the defib, whilst at the same time trying to do CPR, phoning for an ambulance, and, after a while, doing mouth-to-mouth breathing. NB You only have a short time to get blood circulating to the brain by effective CPR before the brain begins to be damaged

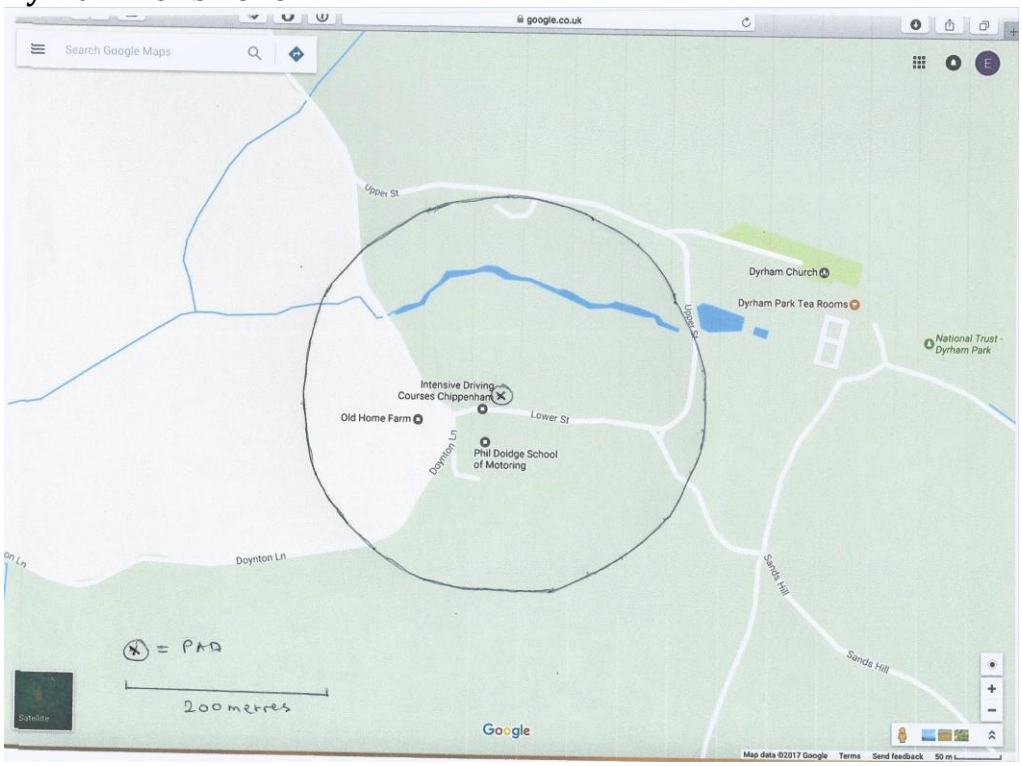
If you have plenty of help and the defib is very near your house, then having a community defib is fine. If it's a ten minute run there and back, then no so good, even if the fetcher leaves in the first few minutes (unlikely). Longer than that, a defib is probably is going to be ineffective unless the victim is having world-class CPR (also unlikely). NB CPR is very exhausting. Most fit people can't do it for more than 10 minutes at a time.

That's why ambulance services set a limit. SWAS (your ambulance provider) has a policy about how far a PAD can be taken from its base station. I confirmed the following with their medical director: in general, SWAS does not allow PADs to be taken beyond 200m, as the crow flies, from its base. This is because, as I pointed out above, the fetching time might be too long – it's best used within four minutes. SWAS thinks that the 200 metres (or about 400 m by road on average) would you take eight minutes return journey, which is the upper limit for benefit. If you look at the maps below, you will see how far 200m is from the two base stations. If you live just outside, the SWAS dispatcher might just allow it, but don't rely on that. Many resident will therefore not have access to the two defibs and will need my survival plan even more. The plan includes CPR, so do go to the PC's CPR training session.

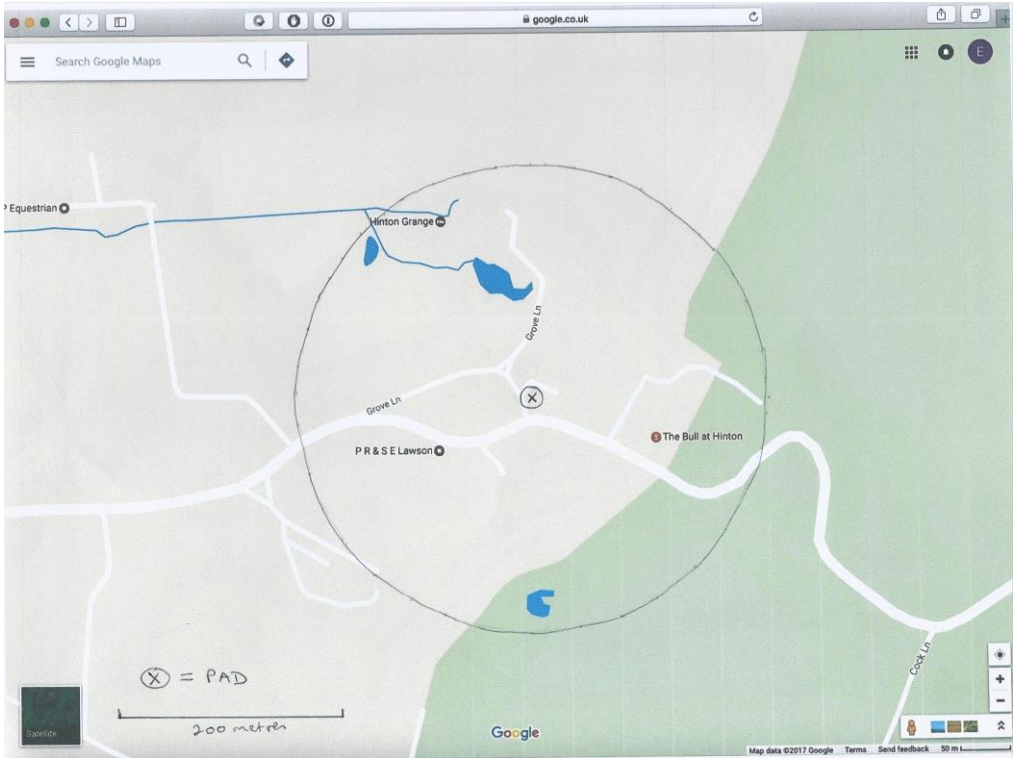
The best course of action in all cases is to call for an ambulance and carry out continuous CPR. If there's a defib within a few minutes and there is someone to go for it, then do that, but not if it means there aren't enough

people to do CPR. When someone has a cardiac arrest, every minute without CPR reduces their chances of survival by 7–10 per cent.

Dyrham Defib Zone



Hinton Defib Zone



Check out whether your house is in the zone by walking briskly to the PAD station and back to your house within eight minutes. If it is, then run back to

your house without stopping carrying about 5 kg check out how practicable it would be for you/ your partner/ your obliging neighbour to fetch the PAD in an emergency. You could, of course, go by car, but consider whether you would be able to drive safely under the circumstances and again whether you would be better off helping with CPR until the ambulance arrives.

2. Minor Considerations

(i) As far as I am aware, there's only been one out-of-hospital heart attack in D&H in the past 10 years. Did the PC determine what the demand would be? What are the causes of death locally? Can we do anything to prevent early/unexpected deaths?
(ii) In proposing defibs, did the PC explain the continuing costs?
(iii) How will the PC protect this expensive kit? Doynton has had problems with theft and destruction of their PADs.
(iv) Did the PC check whether they needed listed building planning permission to put the defect in the Grade 2 listed(!!) telephone box?

3. The PC's Defence

(i) "*The PC must absolutely have them because they save lives*". The PC said that was their medical advice. This is a half-truth; yes they can, but the proposition is debatable in the setting of our community – see above.
(ii) "*If they save just one life than it's worth it*". Yes, people say that, but how far should the idea be taken? Should every airline passenger have an ejector seat whatever the cost? No, you have to be sensible and use evidence and relative cost effectiveness, otherwise the country would go bust. If we really want to save lives, we should donate the to defibs to places without a defib where hundreds of people gather on a continuous or regular basis, in which settings, PADs are proven to be effective.

4. An alternative plan

(i) Educate residents how to avoid having a heart attack – the subject of a feature on D&H.com
(ii) Spend money on training as many of the residents in basic life support as possible. This includes the initial treatment of the common causes of life-threatening events including heart attack and how to give CPR. We would need to get about 20% (guess) of residents trained to make this effective. This would help some residents to survive unexpected/ possibly unavoidable events such as excessive bleeding, choking, stroke etc. instead of just heart attack alone – the PC's defib-only approach. And, for those who train, it is a portable skill that can be used anywhere.
(iii) Spend the money on training as many of the other residents as possible to give CPR and retrain them annually.
(iv) Start-up fitness groups especially for men who are often too shy to appear sweating/ panting in public and who are more like than women to have heart attacks.
(iv) Communicate with all residents by leaflet what to do in a cardiac emergency so they can put it near their telephones.
(v) Somehow chat up our local ambulance service so they come quicker or at least know where we are.

(vi) Donate our two defibs to two places where they may be more effective and more likely to save lives ("Sponsored by the Residents of D&H") – see above.

5. My Credentials

27 years as a consultant anaesthetist and 25 years working with Avon Ambulance Service and other emergency services in training and service provision as Medical Incident Commander for Avon. I have attended many resuscitations. I was a member of BASICS (British Association for Immediate Care) for many years.

The PC did not consult me because I am "not currently employed in the medical profession".