The Ultimate Objective: Planned Obsolescence of Medical Humanitarian Missions: An Interview with Tony Redmond, Professor and Practitioner of International Emergency Medicine and Co-founder of HCRI and UK-Med

Abstract

In this interview with editors Tanja R. Müller and Gemma Sou, Tony Redmond reflects on his long career as a professor and practitioner of international emergency medicine and founder of UK-Med, an NGO that provides international emergency humanitarian medical assistance and which hosts the UK International Emergency Trauma Register (UKIETR) and UK International Emergency Medical Register (UKIEMR). He questions the usefulness of prioritising innovation in medical humanitarianism and advocates aiming for the same duty of care that one would offer in one's everyday practice at home. In this, Tony is also critical of the term 'humanitarian space', as it by definition proclaims an imagined geographical entity where normal rules should not apply.

Keywords: emergency medicine, standards, disaster, humanitarian emergency, professionalism

Introduction

As an academic and practitioner for more than forty years, we asked Tony for his take on innovation from a personal perspective and how this might have changed throughout his career. Tony has worked with medical emergency teams in a range of disasters and conflicts including earthquakes in Armenia (1988), Iran (1990), China (2008) and Haiti (2010), conflicts in Bosnia (1991–96), Kosovo (1999–2000), Sierra Leone (2000) and Gaza (2014), a super typhoon in the Philippines (2013) and outbreak responses in Sierra Leone (2014–15) and Bangladesh (2017).

The interview took place in Tanja's office at the University of Manchester in April 2019.

Tony Redmond: My responses refer specifically to the medical field, where I don't think there has been much in the way of true innovation. And I think that is a failing. You can look at, say, plumpy'nut, for feeding children – that was a great innovation. Peanut butter, high calorie: the kids love it, it is simple and it has been a game changer. There have been some issues around who owns the rights to it, I understand, but it has been really innovative and really quite simple.

But in terms of medical teams, medical support in a humanitarian emergency, there hasn't been much innovation in the delivery of care. And I think the humanitarian healthcare workers are at fault. I sense there is a reluctance to transfer innovations in everyday medical practice to humanitarian work in the field. It seems to me a cultural, a psychosocial block.

If you talk about *surgery*, for example, in a humanitarian setting, immediately among many NGO workers their antibodies will rise. They will say, 'That's terrible, you can't allow that Western, too high-tech surgery; it is inappropriate.' But then if you say, 'So, what about obstructed labour and interventions to save the mother and the child?', then they say, 'Oh, that's fine,' but that is *surgery*. It is a conceptual thing. But safe surgery can have an impact on a community as great, for example, as a vaccination programme. So, you might think, 'That can't be right: vaccination programmes are as cheap as chips and you can get them out to lots of people' – yes, but your target audiences are not economically active, so this may sound very consequentialist or whatever, but that's the fact; they are not the most economically active people. People from 18 to, let's say, in low-income countries, late forties, early

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fifties, they would be helped to some extent by vaccines, but they will usually succumb not to infections but to injury, road-traffic accidents, violence and, in women, complications of labour – and there is a surgical fix to those.

I think the innovations in medicine may need to come conceptually and in the way things are presented; in order to understand that you should really focus on outcome. It is a philosophical approach: whether or not you should just do it or because it really needs to be done. The humanitarian principles are based largely on *just do it*; whereas there is another way of looking at it, where you can say, 'Well, but what about the outcome?' Given that resources are limited, and will always be limited, no matter what situation you find yourself in, choices need to be made. So, you should look at the consequences and the biggest impact of what you do. I think that is where innovation needs to happen. In addition, one needs to remove the idea that what you do in everyday practice cannot be applied to a humanitarian emergency. I think you need to get rid of that idea. It might be difficult and you might not be able to apply all of what you do in every practice; but you should not see medical practice in a humanitarian emergency as something fundamentally separate.

Tanja R. Müller: That is one reason why we wanted to interview you for this issue on innovation, because I know this has been one of your long-standing issues, that people tend to treat humanitarian situations as different.

TR: Yes, it is a conceptual thing. The humanitarian space is proclaimed to exist separately; does it?

TRM: Where do you think this comes from, historically?

TR: Separate to International Humanitarian Law, the medical humanitarian *space* may in part have also evolved from religious missions. Medical teams when doing *global health* can still talk about a 'medical mission'. I think it's the view that you are doing good above all else; you are delivering charity, that may have driven this separation from daily medical practice; that there is a separate space where people suffer and people in that space should be grateful for what they get – harsh, perhaps, but I think it has been a factor. People perhaps will be very offended by that, and I am not saying it to shock or offend. I am just trying to tease out why medical practice in a humanitarian emergency or humanitarian setting becomes viewed as distinct from everyday practice and its accepted standards.

There is also the other question: why does it persist? It is a lot easier if you don't have to do the same things you do in normal practice. Unfortunately, many people find that attractive. Medicine is highly regulated, more and more regulated, more and more accountable, and in a humanitarian setting you hear people saying, 'I just want to go and treat patients in need' – OK, but if you have to be accountable in this country, you have to be accountable everywhere, full stop. And I think that's a problem.

You might just think it's semantics, but I don't think you should ever alter the standard of care that you deliver; I think you should always give the highest standard of care you are able to. However, if you have limited resources and you have a large number of cases, then you will have to adjust the *level* of care that you give to a person, to people, in order to maintain a high *standard* of care to the people.

So, you balance the level of care against the overall standard of care when you have limited resources. But limited resources are not always inevitable, and this begs the question: if you are in an emergency team, why don't you take enough stuff with you? What did you think was going to happen? There is obviously a limit on how much you can carry, but, still, you must be prepared. And if there are too many patients for your team, why are there so few of you? So, you just shouldn't accept these things as inevitable – which they are not. That is why you have heard me say a lot of times, I don't like the phrase '*natural* disaster', because that implies nothing can be done about it, whereas, in fact, there are natural phenomena that occur, but an associated disaster, I would like to challenge people to think, is always man-made.

Things happen, yes, but it is usually the poor who suffer the worst. Whether it is in a typhoon-prone or earthquake-prone area, look where the rich people live and look where the poorer people live and see who lives in the most vulnerable areas and the most vulnerable buildings. The *British Medical Journal* banned the word 'accident', as most injuries and their precipitating events are both predictable and preventable. So too are disasters, and 'natural' can usefully be discarded as an accompanying epithet.

I have begun to worry about the word 'humanitarian' on similar grounds. The phrase 'this is a humanitarian mission' first and foremost implies the inherent goodness of the mission; but there is no automatic reason to assume that. It is a funny word. On the one hand, should not everybody try to be humanitarian, try to be humane? I appreciate adherence to humanitarian principles, but people use the word as though it's a thing in itself – and, when it's a title that has been given to something, as a reason, consciously or subconsciously, to not do all the other things that would be done in a non-humanitarian setting. It is also used to distinguish *emergency* from *development* aid. In practice, I have tried to do more in training the people in the country so they can respond themselves, though it's easier to do the initial response than it is to do the more difficult longer-term response in countries that have very complex social set-ups – poor, weak, sometimes corrupt governments that could thwart anything you do. It's easier to just move your thinking into humanitarian mode – to say to yourself I am

just doing the humanitarian part and will not think about long-term dynamics.

You know the buzz phrase at the UN at the moment is 'the humanitarian and development nexus'. Well, OK, but the fact that we need to come up with a new phrase that joins the two areas together is part of the problem. The thinking shouldn't have separated in that way in the first place.

Gemma Sou: So, you think less of a technological innovation, more a different conceptualisation to change the way things are?

TR: The technological advances are going on, so we don't have to do those; they are in the shop. We just have to go to the shop and get them – for example, electronic medical records, that's all done, using tablets to record and report, using a closed-circuit Wi-Fi-system. The technology is all there, doing points-of-care testing at the patient's bedside; there are tests for everything, and they come in tiny handheld devices – even an ultrasound device, they are hand-held – but none of those have been developed by the humanitarian community. They are all being developed in established medical settings, so we should just draw on these technologies. It is the application and to know that you can use the technology in a humanitarian setting that is the problem; it's conceptual.

I know professionalising the humanitarian sector is again another issue that poses problems for some people about what is meant by that. Well, I would like to think that you could combine professionalism and humanitarianism. There should not have to be a separate career in doing medical humanitarian work. It should all be part of your general medical career. You could then move from different environments throughout your career more easily and not separate them off in this way. Because if you do separate it out – in particular, say, in relation to surgery – how would you ever maintain the skills and keep up with new developments, if you worked predominately in a humanitarian setting? Well, with difficulty is the answer; I am sure some people do, but it is really difficult, whereas if you can move more freely between humanitarian and general medical practice, I think you would also more readily apply in humanitarian settings the technological innovations that are already there.

TRM: That is what UK-Med tries to do, right, taking people working for the NHS who are trained in care as we deliver it in this part of the world and take that overseas?

TR: Yes, and the difficulty we face is how to get them released from the NHS to do this, and here again the innovation needs to be conceptual. First of all, and again coming down to *consequence*, there is enlightened self-interest for our country to let their medical staff do this type of work. Of course, there is the feel-good factor as well, and people feel very professionally enriched when doing humanitarian work, which is good, and they also feel good about themselves, so you do actually retain people in a mundane or routine NHS job if you allow them to do this work. Overall job satisfaction goes up and they can tolerate routine better – no matter how exciting you think your job is, at some point it becomes routine, but you can better tolerate this routine when you have more opportunities to do something out of the routine, so there is that element to it.

But there is also the experience and the technological experience people get by working in a more difficult environment. If you look at management of major incidents and even terrorist attacks and so on, those people who had experience working in difficult emergencies overseas responded better; they understand how to deal with those crises.

The NHS, and if you look at UK-Med specifically, has a cadre of people who are all trained in major-incident management, who are all trained in field exercises where they have to work as a team in difficult circumstances, and we have a large cadre of people trained in outbreaks of dangerous pathogens like Ebola and this kind of thing. They are all trained in how to protect themselves and how to treat patients in that environment. The overseas humanitarian work feeds right back into practices here. You also want is to build capacity, use your experience, and in many ways it is no more than that, because the people have skills; it is more a question of resources and finance, to support them in being able to respond to these things themselves.

In Uganda, for example, they now have huge experience with managing Ebola. In my professional lifetime, I have seen the capacity of disaster-prone countries increase enormously. The need, certainly around earthquakes and trauma responses, for teams from Western Europe to go to disaster-prone countries has clearly gone down and is going down as it should. If we look at the Nepal earthquake, there was very little need for outside aid, and the response was very good because it was a Nepali response. But a lot of NGOs had also worked on preparing the country for the earthquake that they knew was coming. And the Nepali government worked hard, and they had very good surgical expertise. So, the capacity has increased.

GS: How has UK-Med innovated over the years?

TR: UK-Med's biggest innovation is in setting up an application of standards that try to mirror the standards of UK practice.

GS: In relation to standards of practice, is this something that other organisations are also doing, following in UK-Med's footsteps?

TR: Yes, other organisations are following UK-Med and the work of other teams, such as MSF, Red Cross,

ICRC and so on. This all led to the WHO Emergency Medical Teams initiative, which has codified a set of standards that are there for people to see what they should aspire to. These are minimum/core standards and mimic the general way that medical practice develops before you've got the complete evidence for what you do. You first get a consensus view and you say these are the agreed standards, and if people say, 'No they're not! That's terrible!', you ask them 'Why are they not?' and draw out from them their evidence. Usually you'll find that if you get the right group of people then their standards are not way off each other. With common standards, you can then start gaining some meaningful data. That's been a huge innovation. So, we've got the standards and people are keen to work to those standards because they see it as a *kite mark*. The next stage now is to get the data and review what we're actually doing. This might show that we're having minimal impact; it might show negative aspects of the work; and it might point out what the good things are.

The measurement of outcomes in and of itself is an innovation, because these practices never used to be measured. You could simply say that it is great that people are helping others, but we need to understand and we need to know the consequences. Certainly, with some surgical interventions, such as limb salvage, I don't know whether the pendulum has gone the other way and if I am responsible. I was looking back on papers I wrote thirty years ago saying people are not amputating enough or early enough. And I'm saying the opposite now. Practice has changed, but I think you've got to get the evidence and the data. The innovations from these measurements that will have the biggest impacts will not be technological: they will be process-driven.

GS: Did any innovative practices emerge later in your career that you wished had arrived earlier?

TR: Yes, the point-of-care testing. The handheld devices for testing. So, you can test for malaria, for example. And the big one is the handheld ultrasound. You can hold the handheld ultrasound and you can diagnose an awful lot of things with that. Obviously, you can look inside body cavities to see if people are bleeding, and even run them over bones to see if they are fractured.

TRM: Since when have they been around?

TR: In common practice in the last ten years. But the more portable ones were coming in the mid-1990s, but you still had to wheel them in. Then they got lighter after that, and now the technology is very good, to the extent that it's become part of your examination in the emergency department that the physician will run a scan over you.

GS: What would happen before you had these technologies?

TR: Well, in clinical practice in the UK you would do a physical examination, which depends on how experienced you are. You ask what does it look like, what does it feel like, see if it's tender; you listen; you percuss to see if there is air. But it's a *guesstimate*. An ultrasound can cut a lot of that out; you can manage very well with a portable ultrasound. So, in the past people could have had unnecessary operations. And in a context where infection control is difficult you want to reduce the number of operations that you do. So, being able to look at those things is really important.

GS: Have you seen any new practices or technologies that were unsuccessful?

TR: Yes, doing too much surgery. Doing surgical techniques that require too much follow-up. One of the problems is that if you focus just on the technology and not on the human support that is required for that technology to work, it will fail. For example, doing tissue transfers for a terrible wound that you need to close: you've got a lot of tissue missing, you can move a whole muscle – say, your *latissimus dorsi*. You can move that with its blood supply, cut it out, put it over the wound, and under an operating microscope you connect all the blood vessels so it can now live there and it will cover the wound. But it requires specialist post-op nursing care to make sure it doesn't become infected. So, first you need an operating microscope, which you're not going to take with you, plus it's complicated, and you need specialist nurses for the post-op period.

So, many years ago I worked in Sarajevo, where they had a plastic-surgery centre. Sarajevo was a leading plastic-surgery centre and lots of war wounds needed attention. But in the war they didn't have all the specialist staff to look after the patients. So, some teams would go in and there would be an operating microscope to work with, but there were no staff to look after patients after their complex graft surgery, so the operations failed. People still ended up with a wound but also the loss of the muscle for no advantage, whereas you could have just done a more straightforward procedure – just a skin graft, say, that would have helped.

More recently, internal fixation. So, most fractures now will be managed with internal fixation. So, you open them up and line the bones together and put in a piece of metal and screws and join them together. Or you put a nail down the middle of the bones. The problem is that you've got metal, which is a site for infection, and you've got circulating bacteria that will lodge on those places. But if you have a good sterile hospital with antibiotics, you would hope that, by and large, they don't get infected. But if you're doing that in a tent where you will not have the same sterile operating environment as you would in an operating theatre, and again you don't have the specialist post-op aftercare, it will more likely get infected.

Saying this, MSF will use internal fixation, I understand, but that's because their field hospitals can be so

sophisticated that they have a proper lamina flow, just like in an operating theatre in the UK, to the extent that it does match the technology that they would have in a more established hospital.

TRM: Is it only MSF that has this level of sophistication?

TR: No, the UK-Med operating theatre has one. The problem is that it just adds to the weight and bulk of things that you are taking on deployment. And the MSF field hospitals are often established quite a long while, so you only need to carry stuff in once. So, it is possible.

TRM: Thank you so much Tony. Is there anything you would like to add?

TR: Yes, I want to clarify the idea about the humanitarian sector *adapting*, which I talked about earlier. To me, that sounds like a business statement. For example, if you were running a business and you wanted to keep the business going, that's the sort of thing you would say. But why do we need to maintain the relevance, reputation and impact of the humanitarian sector? I would hope that its relevance fades as local capacity increases. We're not there yet. But it's another conceptual thing that the aid industry is looking for something to do and place itself in, when, in fact, it shouldn't be about that. It should be responding to a clearly identified need. For instance, we get people who want to volunteer with us and they so want to be deployed; but we say you might not always be needed. This might be difficult for them to hear because they just want to go. When I was fit enough to deploy, and I didn't, people would say, 'Oh, I didn't expect to see you here, as there's been a disaster,' and I'd say 'Well, they're not asking for outside help' – 'Oh, they don't need you anymore,' they'd say to me. I'd think, 'Well, actually, no they don't.' But there's this idea that you've got to go, and as it's become more industrialised and competitive, it's very hard for agencies not to go when others are getting the publicity.

GS: It seems as though there should be some sort of planned obsolescence in the humanitarian sector.

TR: I think there should be, yes, and you can see it's starting. Look at China. China is an exporter of emergency medical teams, and it's only ten years ago that there was an import, after the Sichuan earthquake. It would be unthinkable now. They have an institute for it, they have a higher number of verified emergency medical teams than any other country, and you can see that other countries will follow.

Also, before we end, I want to say that the humanitarian response needs to be led by local people. And it must be needs-driven. There's been great improvement in that, but it's still not always needs-driven; it should not simply be driven by what we did before. There will often be a response that follows the line of 'this is what we do and this is what we've done before', but there hasn't been enough attention to what people's needs actually are, and the response needs to be focused on those needs.