Radiography in Haiti

Lesley Greenwood-Haigh, Superintendent III, Clayton Hospital, part of the Mid Yorkshire Hospitals NHS Trust, describes her experiences working in a small Haitian hospital.

Introduction

Mention the country Haiti and many people mistakenly think of Tahiti – grass skirts and palm trees... a wonderful paradise. Although Haiti is a Caribbean country, neighbouring the Dominican Republic, it could no longer be called paradise. Once referred to as the pearl of the Antilles, Haiti has suffered years of oppression under the cruel dictatorship of Papa Doc Duvalier and has been the subject of sanctions from the developed world, in particular the US.

Life expectancy is 52 years and about 80% of the population live in abject poverty. More than two thirds of the labour force don't have formal jobs, only 59% of people have access to safe drinking water in urban areas, falling to 27% in rural areas, and only 50% of the population have access to health services. There is no welfare system and education and healthcare come at a cost.

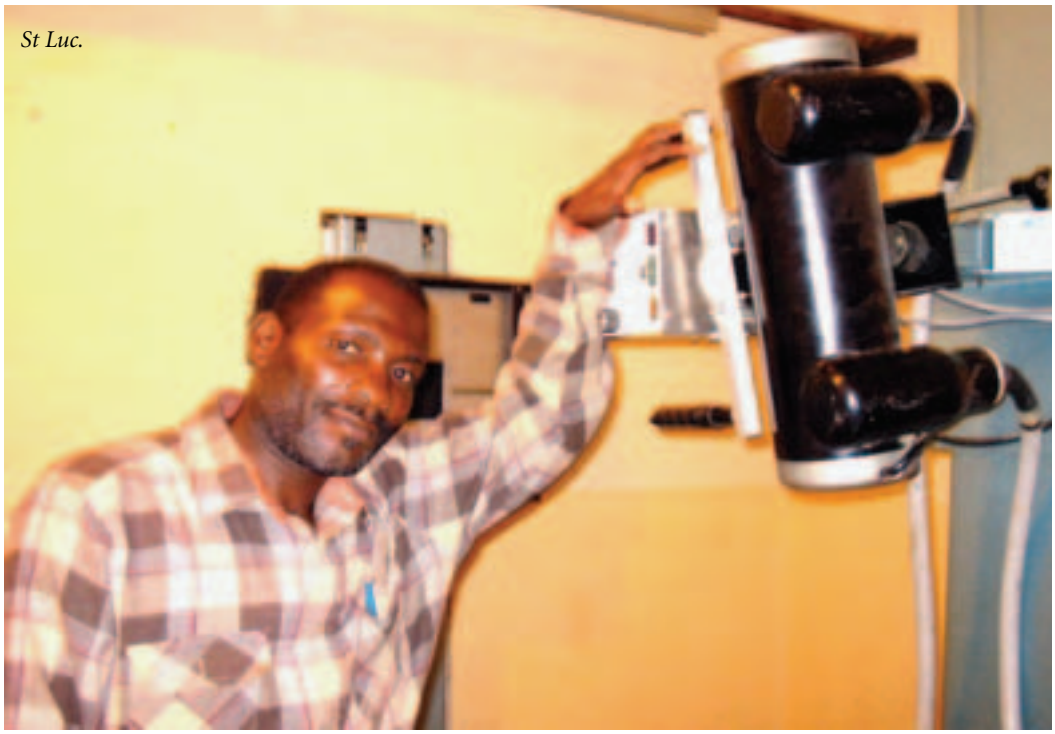
Initial problems

I went out to La Pointe in north west Haiti in September 2003, my second visit, as a member of a team with the Hands of Hope charity. The aim of the visit was multi-fold with team members tasked with helping in the building of a school, working in a children's hospital, carrying out electrical maintenance work in and around the main hospital complex, and working alongside the radiographer in the x-ray department. I was involved in the latter task.

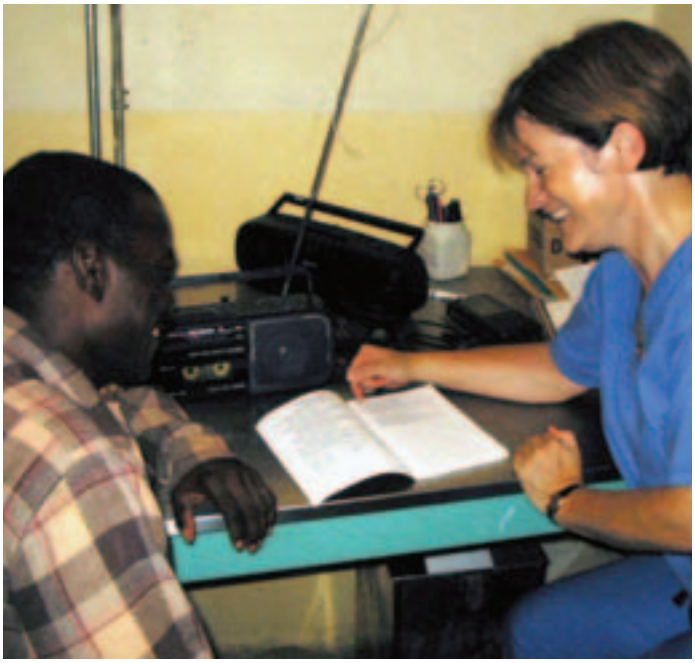
The language of Haiti is Haitian Creole, which is very similar to French. Many Haitians speak French and a few English. Therein lay the first problem as my French is limited and the radiographer, St Luc, spoke no English. The second difficulty was that the only reason that St Luc was 'qualified' to carry out radiography was the fact that his brother was the hospital's radiographer before he left to go to Miami.

Since my first visit two years ago, an Easymatic 300 system had been installed (the old set had blown up). I found the date of manufacture and wasn't surprised to read 1974. As well as my communication abilities, my mathematical abilities were tested as mA and Sec were selected independently.

It was immediately apparent that the tube head was angled across the table, meaning that in order to image patients, St Luc had to push them to the edge of the table. It also meant that he was unable to use the bucky because of grid cut off (there was no a stationary grid) and so spines, abdomens, etc, were done on the tabletop. In addition, the light bulb had blown, so the diaphragms were fully open for all projections. St Luc continued to use the lead rubber to mask the film as I had shown him on my first visit, but he no longer used gonad protection. Film development is 'wet developing' and although I had previously explained the hazards of this procedure, he was unable to use gloves or a



St Luc.



Above: Teaching St Luc.

Below: Our electrician assesses the angled tube head and the problem with the light beam diapragm.

mask because of a lack of resources. However, I had anticipated this and had taken a supply of marigolds and surgeons masks with me.

A testing time

I had contacted the American hospital director in Haiti before my visit to find out if there was any equipment that I would be able to take out with me. He advised me that a new 35x43cm cassette would be greatly appreciated, as they were experiencing marks on the films. This I did, but when I arrived all the cassettes needed replacing due to damaged screens. Because St Luc has had no formal training, he didn't realise the importance of keeping the screens clean and careful handling. I showed him how to clean the screens and this improved the images we produced a little. The films were dried using a large fan which, for me, was wonderful as there was no air conditioning. (One day we measured the temperature and were amazed to see a reading of 54°C.)

The dark room held its own delights. The starter motor for the fluorescent red light had fallen off, and St Luc switched the light on in the morning by touching together the bare ends of two wires with a wooden stick. One of my first jobs was to get Harry, our team's electrician, to come and fix it. The wildlife in the x-ray room, and in particular the darkroom, was abundant. In addition to the numerous flies, mosquitoes, lizards and spiders, I spotted several cockroaches and more than one mouse.

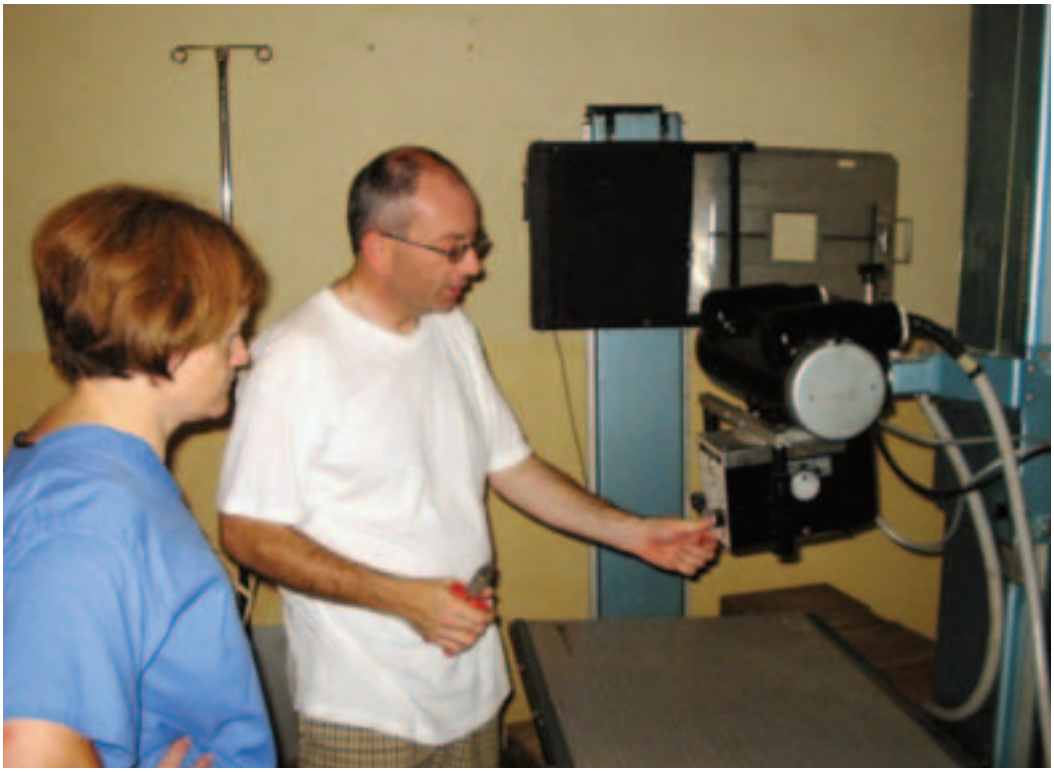
My aim was to improve the service that St Luc could offer. With the help of one of the American doctors at the hospital, I explained radiation protection, the importance of correct positioning, washing the film in-between developing and fixing, and the importance of identifying left and right (I made some markers from a wire coat hanger). With the help of one of my teammates I demonstrated positioning and I wrote out an exposure chart, explaining the advantage of using higher mA for chests, etc.

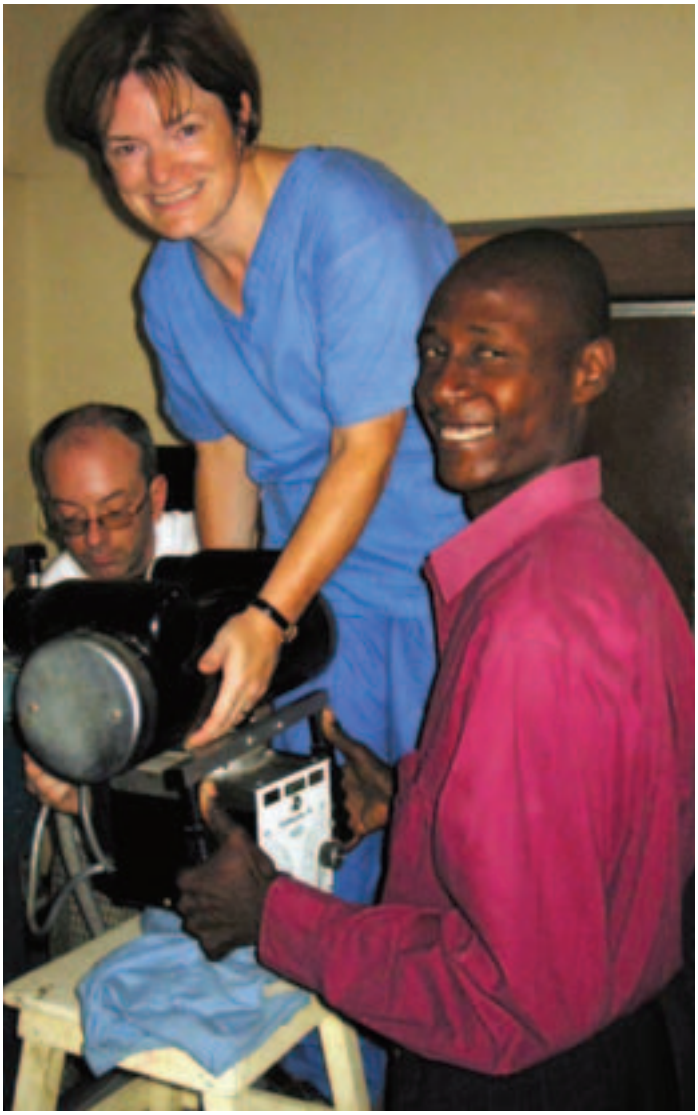
However, there remained the major problem of the angled tube head. On careful inspection, I thought that by loosening some screws on the gantry, the tube head could be lifted up and forward. I enlisted the help of another member of our team and by using copious amounts of grease to loosen the screws and good old brute force (his words), we managed to straighten it. This opened up the world of buckys to us, and I was able to show St Luc that not only did we produce better images but it was much easier for us to x-ray people. I couldn't get access to a replacement light bulb but as the tube was now straight, it was possible for me to show St Luc how to use the diaphragms more effectively.

Minimal handling isn't an option due to the cramped space and no moving equipment. We had to physically lift patients onto the table with the help of their relatives, which considering the condition of some of the patients and the absence of any form of pain relief, was quite traumatic.

Limited resources

In between training and x-raying patients, St Luc taught me Creole and I taught him English. The Haitian sense of humour is similar to our own and despite the language difficulties we got on very well. I consider St Luc to be a friend.





Left: Fixing the tube.

Tap-Tap – a pick up truck with a six-inch wooden plank around the edge – is the main form of transport in Haiti. There are no sides or roof and everyone hangs on to each other. People ride on the roof of the driver's cabin and because of the numerous potholes in the road, there are many accidents involving people falling off. Nutrition is poor and, as a consequence, the incidence of fractures is higher than in our country – I saw some pretty horrific injuries. Many of the patients have TB and an estimated 250,000 Haitians are living with HIV/AIDS.

Healthcare is expensive (the cost of one x-ray is the equivalent of half a week's wage for St Luc), and the majority of people live many miles from treatment centres. This means that people wait until they are really sick before going to the hospital. Violence is on the increase and in the short time I was there, I x-rayed two patients with gunshot wounds.

Providing imaging services in a fully resourced department would be a challenge in Haiti but with the limited resources available it's a real battle. St Luc is the only x-ray technician so if a patient is in need of an x-ray during the night or at the weekend, someone goes to get him. St Luc doesn't get holidays or sick pay, but he is considered fortunate because he has a job.

Funding

All the members of the team funded their own visit. I was able to go thanks to funding from the Society of Radiographers' Overseas Placement Fund, for which I am very grateful. I was only in Haiti for three and a half weeks, but would welcome the opportunity to spend longer as there is so much that could be achieved.

On both occasions I have returned with a sense of gratitude for the conditions we enjoy here in England, but also a heightened sense of the injustice at the conditions in which our fellow human beings exist.

Further information

For more information on the charity with which Lesley is involved, visit the website at www.handsofhope.org.uk. For information on how to apply for the Society of Radiographers Overseas Placement Fund, please contact Gill Smith on tel: 020 7740 7203 or email gills@sor.org