

Pharmacy at the scouts' jamboree

Pharmacist and scout leader **Martin King** describes volunteering at the largest ever scouting event, which took place in the summer

Take 32,000 young people from 187 countries, add 8,000 staff, mix in 42,000 day visitors and place into 650 acres of parkland in Chelmsford, Essex, and what have you got? The 21st World Scout Jamboree. Held from 27 July to 8 August, this jamboree was particularly special because it also celebrated 100 years of the scouting movement. It was in 1907 that Robert Baden-Powell set up an experimental camp on Brownsea Island, Dorset, to try out his ideas. This led to a movement that now involves some 28 million young people world-wide.

With thousands of people in one place it is an unfortunate reality that some will end up needing the camp medical facilities. Fortunately we had planned for almost every eventuality in our efforts to keep the army of participants and adult volunteers healthy.

A medical team of over 220, including doctors, nurses, first aiders, physiotherapists, dentists and scores of ancillary staff, kept the onsite medical facility running like a well oiled machine. Stocking and supplying these professionals fell to a pharmacy and stores team, all of whom are scout leaders or Guide Association volunteers. This team of 10 people (five of whom were pharmacists), most recruited by word of mouth was mainly British, but did include a pharmacy technician from France and one from the Czech Republic.



The jamboree's pharmacy and stores team

We could not have undertaken this mammoth task without the help of our benefactors. Thanks to generous donations, we had defibrillators, a portable X-ray facility, intravenous fluids and emergency vehicles. In addition, we had free and direct access to Medicines Complete, an online service which brings together some of the world's leading drug and health care references (including Martindale, the British National Formulary and Stockley's Drug Interactions), courtesy of RPS Publishing. With so many nations present, the doctors and pharmacists used this resource to identify the medicines participants brought with them and also to translate the treatments required by non-UK doctors into products that are available in the UK.

We ensured that the medical teams had all the equipment and consumables they needed to save lives, or to administer "TLC", whichever was required. We stocked every-

thing from oxygen to sutures and from eye pads to chest drains. We used over 28,000 gloves, 1,100 triangular bandages, 8,500 wound dressings and 750 metres of tubular bandage to deal with the many and varied injuries that presented during the event. But these figures pale into insignificance when you consider the staff restaurant went through 343,000 litres of milk, 220,000 litres of fruit juice and 34 tonnes of tomatoes during the 17 days the staff were on site.

The jamboree was packed with activities, from flower arranging to scuba diving to and climbing to community projects, such as renovating a garden at a local old people's home. World villages were set up for the participants to learn about other countries and a global development village for learning about poverty, climate change and human rights. And, of course, there was the "sunrise ceremony" at which the scouts renewed their promises.

I felt an immense degree of satisfaction helping to run the event. Everyone got on, even those from countries that are currently at war. Anyone who has attended a world scout jamboree will tell you that it is a life changing experience. Meeting and living with people from so many cultures, races and backgrounds makes you appraise your own life and life style.

For information about scouting in the UK go to www.scouts.org.uk

Why the "scientist on the high street" could be talented in the kitchen

Good pharmacists should be good cooks, says community pharmacist **Bob Dunkley**. In this article, he looks at the science of cooking

It is no coincidence that the inventors of Bird's custard, Lea & Perrin's Worcestershire sauce and Coca Cola were pharmacists. Every time you cook a meal, you are doing science. The conditions, the equipment and ingredients must be just right, or the end result will not be what you expect. When we make an ointment, a cream or suppositories, we use ingredients that conform to the British (or European) Pharmacopoeia, we use temperatures that the formula states, we use equipment that is up to snuff and we use techniques that produce an attractive and efficacious product. During a pharmacy degree we learn pharmaceuticals, pharmacognosy, physical chemistry, organic chemistry, pharmacology, physiology and mathematics, and many of these can be applied to cookery.

Science and equipment

The four most used utensils in the kitchen are the saucepan, the knife, the chopping board and, of course, a source of heat. There has been a movement lately which says raw food is good for you. Well, sometimes it is and sometimes it isn't. For example, raw potatoes cannot be digested because the starch in them cannot be absorbed but heat them and the starch is converted into an easily digested form. Heating makes the food edible and, perhaps more importantly for a pharmacist, reduces the risk of food poisoning.

Heat from the cooker or oven must be transferred through the pan to whatever is being cooked. Convection is the main manner of heat transfer and cooking time is proportional to the radius of the food. In theory

(you won't be doing this in the kitchen), we can relate the time (t) for a sphere of radius (r) to heat through to the centre, to the temperature of the cooking medium (T), the required final temperature of the food (T_c), the thermal diffusivity of the food (κ), and the specific heat of the surrounding medium (s) using the equation:

$$t \propto \frac{r^2}{\kappa^2 s^2 [\log (T-T_c)]^2}$$

A similar equation exists for boiling eggs (see Panel). We all know that heat flows from a hot body to a cold one but the material it flows through has an effect on the outcome (ie, cooked food or burnt food). I don't care if a pan has a copper-bottomed base, hand

burnished by dusky maids in a distant country; the basic rule is the thicker the material a pan is made of, the more even its heat conductivity and the less likely it is that the food will burn. The equation above simplifies to an empirical principle: if you hit someone over the head with a good saucepan, it should give them a big dent in their head.

There is nothing more dangerous in a kitchen than a blunt knife — would you prepare guinea pig ileum in a pharmacology laboratory with a blunt scalpel? Knives should be steeled after each outing and, occasionally, put on an oil-stone. The steel used for making the knife will determine how sharp the knife can get and how easy it is to sharpen. High carbon steel knives look good and keep an edge (sort of) but are expensive. Get yourself a knife of vanadium steel. Being harder than carbon, a vanadium blade keeps its edge longer and, besides, looks cool.

A dish that defeats many cooks is the soufflé. *Souffler* in French means to blow or puff and a soufflé is nothing more than a foam of egg white cooked in an oven. Egg whites are beaten to a very stiff foam to introduce air into the mixture — a power whisk is a great help here. Its existence is influenced by Charles's law (the volume of a fixed mass of gas at constant pressure expands by 1/273 of its volume at 0C for every degree centigrade rise in temperature). But Charles's law is only part of the soufflé rise. The constant evaporation of water from the mixture makes more bubbles and helps the soufflé rise. But what goes up can come down. Soufflés should be served immediately from the oven otherwise, as the temperature falls, Charles's law goes into reverse and the soufflé will fall. Other soufflé tips are always to use a ramekin, greasing it with a hard fat, so that the rise is even, and to use as little fat in the mixture as possible because it denatures proteins in the egg white and the foam will collapse. Cooks tend to be nervous about making soufflés. Remember that it is temperature that is important. Oven doors can be opened and banged until they fall off and they will not cause a soufflé to budge.

Now enough physics. Let us look at organic chemistry. Why does roast meat taste so good? It's all to do with heterocyclic amines. These are formed at high temperatures by reactions between creatine and creatinine. When you put that roast in the pan, these reactions leave all those lovely juices in the pan. Add a little cornflour and stir, and you will have a gravy to die for — after all you are making an emulsion. The corn flour acts as an emulsifier, enabling the oil to mix with the water. Other emulsions in the kitchen include mayonnaise and Hollandaise sauce, in which the phospholipid lecithin in egg yolk is the emulsifier. Salad dressing is an example of an unstable emulsion, where the oil and vinegar quickly separate. The chemistry is too complex for this article, but I will share a compounding tip gained from personal experience: do not use a food processor to make curry mayonnaise. The emulsion will



Eugene Bochkarev/Dreamstime.com

crack, and you get an oily slick, because the energy input is sufficient to take out the emulsifier — use a balloon whisk instead.

Not all the rules that apply to dispensing apply to cooking. Once upon a time, everyone in the British Isles ate fish as a regular item of their diet. But as soon as the fish left the water and died, they decomposed — keep fish for a day or two and they begin to give off an aroma of ammonia. Smoking fish was an answer. The smoke from burning wood chips coats the fish with benzophenanthrenes, preserving it. But smoking fish poses health hazards because benzo-phenanthrenes are carcinogens. If you want to make any product containing coal tar (ie, benzo-phenanthrenes) in the dispensary, you have numerous hoops to go through. Fish smokers have none of this. But let it be said: I love smoked fish.

How do you do a fine joint of sirloin? I bet you put it in a high temperature for X minutes, then turn down the temperature for another Y minutes (à la Delia). In fact, meat does not have to be seared to keep the juices in. The muscle fibres in the meat begin to coagulate at 120F. Take it beyond this point and

at 140F, more of the proteins in the muscle cells coagulate and produce a tougher, less juicy product.

There is an important reaction that takes place in cooking meat, bread, coffee beans, dark beer, and that is the Maillard reaction, named after the French chemist Louis Camille Maillard (1878–1936). When amino groups of amino acids, peptides or proteins react with the glycosidic hydroxyl groups of sugars, brown pigments, including those we love in browned meat or on toast, are formed.

Of course, cooking includes the use of herbs and spices (ie, pharmacognosy). Why do these give foods that oomph? The answer is a small chemical called isoterpene, the building block from which herbs and spices get their savour. It is present in all the spices used in the kitchen as well as in perfumes and after shaves. But isoterpene has a fatal fault: it has a double carbon bond that is particularly susceptible to attack by oxygen, and when that bond is cleaved, the aroma is destroyed. It makes no difference if that bond is in your sage, or in my wife's Miss Dior the resulting product will not smell the same. If you want your herbs and spices (and coffee) to retain their aroma, buy them as you need them, keep them refrigerated and out of sunlight.

We have a burgeoning Asian community, in the UK and one item of the Asian diet deserves particular mention: the chilli. This little vegetable gives power to a dish. Chillies contain capsaicin, which the body cannot process, so it passes through the body unchanged. Everywhere it goes, it heats up the mucosa it comes in contact with. (This explains why when you have had a particularly vicious vindaloo or phaal at the local Indian, the next morning you have anal grief.) As readers will know, manufacturers are using capsaicin in rubifacients to provide warm relief to a painful joint. The hotness of chillies, by the way, are rated in Scovill units. Ranging from sweet bell pepper at 0 units, cayenne at 23,000 to tabasco at 190,524 and Bhut Jolokia — the hottest chilli in the world — at a million plus. Why we like to eat hot foods is easily explained — they release endorphins in the brain so that every time we have a curry, we get a jolt of natural morphine.

Another significant topic is microbiology. Nothing in the kitchen can spread disease more than an ill-maintained chopping board. Bacteria found on chopping boards have included *Staphylococcus aureus* and *Pseudomonas aeruginosa*. Every time you cut through a piece of meat you create a crevice in the board for bacteria to get into. (Anaerobes, such as *Clostridium* spp, can happily live in these cuts.) Chopping boards should be scrubbed with steel wool after each use, until the crevice is worked away. Sticklers may wish to use a biocide like chlorhexidine, but this might alter the taste of the food.

You've got to have soul

I hope I have convinced readers that pharmacists are not too removed from the great chefs of the day. But one thing I must stress is that

The perfect boiled egg

Here is a fail safe formula for boiling an egg. Temperature defines the result. Up to 63C the white is similar to a partially set jelly and the yolk runny, like washing up liquid; between 65 and 70C the white sets to a soft gel and the yolk is still liquid but thicker; at 73C the white has the same texture as soft fruit and the yolk is like a thick shampoo; at 77C the white becomes harder still and the yolk has the texture of set yoghurt; at 80C there is the onset of green colouration around yolk; and at 90C, the yolk is dry and crumbly. Of course, the diameter of the egg and its initial temperature are vital to the end result and the following equation can be applied:

$$t = 0.0015d^2 \log_e \left[\frac{2(T_{\text{water}} - T_0)}{(T_{\text{water}} - T_{\text{yolk}})} \right]$$

where d is the diameter of the egg (mm);
 T_0 is the temperature of the egg before it was put into the water (C);
 T_{water} is the temperature of the water;
 t is the cooking time

Adapted from Barham P. The science of cooking. Springer Verlag, Berlin, 2001.

to cook or to dispense extemporaneously, you need soul. I would like to think I have it but I am afraid my wife lacks it — although she made a blinding boeuf bourgignon the other night.

Something else that pharmacists need to do is continuing professional development. For those who are interested in developing

their cooking skills, the following is a selection of resources:

- Barham P. The science of cooking. Springer Verlag: Berlin; 2001. (The new testament of cooking.)
- The Culinary institute of America. The professional chef's knife kit. John Wiley:

Chichester; 2000 (For those who really want to know about knife use and care)

- J. O. O'Brien (editor). The Maillard reaction in food and medicine. The Royal Society of Chemistry: Cambridge; 1998.
- McGee H. On food and cooking. Hodder & Stoughton: London; 2004. (The bible of food and cooking.)

Getting clinical in the Cayman Islands

In 2000, **Christina Short** and her husband crated up their possessions, rented out their home and moved to Grand Cayman, where she took up the post of clinical pharmacist for the government health service, joining a team of 11 pharmacists, five technicians and two assistants. In this article, she describes working in the "Jewel of the Caribbean"



Ryszard Laskowski/Dreamstime.com

Best known as an off-shore tax haven, the three-island archipelago of the Cayman Islands is located in the western Caribbean about 150 miles south of Cuba, 460 miles south of Miami, Florida, and 167 miles north west of Jamaica. Grand Cayman, the largest of the three islands, has an area of about 76 square miles and is approximately 22 miles long with an average width of four miles. The island is low-lying, with the highest point, "The Mountain" about 60 feet above sea level.

Situated about 89 miles northeast of Grand Cayman, Cayman Brac is about 12 miles long, with an average width of 1.25 miles, and has an area of about 15 square miles. The Bluff, a massive central limestone outcrop for which the island is named (*brac* being Gaelic for bluff), rises steadily along the length of the island up to 140ft. at the eastern end. Little Cayman, sited five miles west of Cayman Brac, is approximately 10 miles long with an average width of just over a mile.

A 2005 estimate of land use determined that the Cayman Islands had 3.85 per cent arable land and no permanent crops, with about 90 per cent of the islands' food and consumer goods being imported. There is no direct taxation. The government's primary source of income is indirect taxation: a duty of 20 per cent is levied against goods imported into the islands. Few goods are exempt; notable examples include books, cameras and baby milk. A flat licensing fee is

levied on financial institutions that operate in the islands and a small fee is charged to each tourist arriving on the islands.

Tourism accounts for 70–75 per cent of the annual gross domestic product and 75 per cent of foreign currency earnings of the Cayman Islands. The industry is aimed at the luxury and diving markets, catering mainly to visitors from North America. Of the one million plus tourists who visit the islands annually (around half from the US), 99 per cent stay on Grand Cayman. The capital George Town on Grand Cayman also serves as a major cruise ship port, which brings in 4,000–22,000 tourists a day.

Grand Cayman's major attraction is Seven Mile Beach on which most of the island's hotels and resorts are located. Other tourist draws include the black limestone spires of Hell, a turtle farm, the Queen Elizabeth Botanical Garden and Pedro Castle. There are several snorkelling locations where tourists can swim with stingrays.

The Cayman Islands have a tropical marine climate, the temperature seldom goes lower than 21C or higher than 32C. The average is 26C in the winter and about 30C in the summer. The average annual humidity is 77 per cent. Rainfall varies over the islands and seasonally, but in George Town the average monthly figure is six inches. A major natural hazard is the tropical cyclones that form during the Atlantic hurricane season from

June to November. On 11 and 12 September 2004, 95 per cent of the buildings on Grand Cayman were damaged by a category five hurricane (Ivan). Power, water and communications were all disrupted. The magnetic resonance imaging scanner at the hospital was also destroyed. Ivan was the worst hurricane to hit the islands in 86 years.

The islands are also located on the plate boundary between the west moving North American and eastward travelling Caribbean tectonic plates. Minor tremors are recorded but in December 2004, a quake of 6.8 magnitude rocked Grand Cayman. Short in duration, the earthquake opened some small sinkholes but otherwise did no damage.

The latest population estimate of the Cayman Islands as of April 2006 is 57,800, representing a mix of over 100 nationalities, about 50 per cent of whom are of Caymanian descent. Most people live on Grand Cayman. About 2,000 people live on Cayman Brac and Little Cayman has around 200 permanent residents.

Health care

Comprehensive medical services are available on the islands. Health insurance, handled by private insurers and a government-run company Cayman Islands Health Insurance Company, is mandatory. There is no universal health coverage as in the UK and health care and medicines are costly.

There are two hospitals in on Grand Cayman, the Cayman Islands Hospital (referred to locally as George Town Hospital), run by the Health Services Authority and the smaller, private Chrissie Tomlinson Memorial Hospital. Cayman Islands Hospital is a modern two story, 124-bed hospital, and the principal health care facility in the country. It offers accident and emergency services, full maternity services, daily general practice surgeries, haemodialysis, operating theatres, physiotherapy, a pharmacy, a central sterilisation unit, and laboratory services, including a state-of-the-art forensic unit.

The hospital's affiliation with Baptist Hospital of Miami caters for patients requiring advanced care or treatment and with contracts with hospitals in Florida and the West Indies addressing long-term care. Medical evacuation services to Miami are available, when necessary a Lear Jet B-20 is available for transportation to US facilities at two hours notice.

The four district health centres in Grand Cayman are staffed by a wide range of health and social care professionals and function as extensions of the hospital outpatient department, offering community-based preventive and curative services.

The 18-bed Faith Hospital on Cayman Brac serves the residents of Cayman Brac and Little Cayman, providing primary, secondary, and emergency care. Faith Hospital physicians cover general medicine, surgery, anaesthetics, and obstetrics and gynaecology. Regular visits by specialist physicians from the Cayman Islands Hospital provide paediatric, orthopaedic, ophthalmology, urology, mental health, nutrition and ear, nose and throat services. On Little Cayman a purpose-built health care facility has a waiting area, a triage area, treatment room, and offices for weekly physician's and dentist visits. A registered nurse conducts clinics on weekdays, makes home visits and provides pre-hospital care services in association with a paramedic.



There are eight community pharmacies on Grand Cayman with two open for 12 hours a day and many open on Sundays. Most take a more American retail approach, resembling a "drugstore" and selling items more analogous to a tourist shop or newsagent (see image).

Drugs and other medical equipment are not manufactured in Cayman. Legislation provides controls for the importation and dispensing of drugs. Approval of the Health Practitioners' Board is required for the use of drugs and medical equipment not produced in the US or UK.

Pioneering the clinical pharmacist role

The establishment of a clinical pharmacy service had the support of many health care professionals within the Health Services Department. Development of the service was made in consultation with these people and, to this end, a needs assessment was undertaken. All respondents indicated a requirement for medicines information, both reactive and proactive. All groups also identified issues relating to the functioning of the Drug and Therapeutics Committee as a priority, with medical staff recognising the need for the production of critical independent reviews of individual and therapeutic groups of drugs. All staff groups requested dissemination of DTC decisions.

Key roles of the clinical pharmacist identified by the needs assessment included provid-

ing medicines information, and intervention monitoring.

Medicines information service

A medicines information service was established and provided to all health care professionals and the general public. In keeping with international standards, all queries were recorded and indexed. Most questions could be answered with either a telephone call or brief written report. New to me was giving responses for use in legal cases (eg, inquests and medical compe-

tency investigations) and, for these, more work in analysis, interpretation and reporting of the information was required.

Intervention monitoring

Maintenance of an intervention log demonstrated the early recognition of the clinical pharmacist as an informed member of the team, with up to 91 per cent of interventions resulting from a proactive approach to the clinical pharmacist for information by other health care professionals and the public.

Drug and Therapeutics Committee

During my tenure as clinical pharmacist the effectiveness and productivity of the Drug and Therapeutics Committee increased markedly. Experienced leadership, revised membership to include designated specialty representatives and the provision of supporting evidence-based briefing papers facilitated informed discussion and debate in meetings. Prompt circulation of information relating to decisions made by the committee in the form of a newsletter sent with and corroborating the minutes gave more information on key decisions. The committee also became actively involved in the production of evidence-based medicine guidelines.

Local peculiarities

There are no endemic tropical diseases, and the islands are non-malarial. However, some medical problems are caused by diving or eating seafood.

Ciguatera poisoning

Ciguatera fish poisoning occurs as a result of the consumption of semitropical bottom-feeding fish that dine on plants or smaller fish, which have accumulated ciguatoxins from microscopic dinoflagellates, such as *Gambierdiscus toxicus*. The larger the fish, the greater the toxicity. The ciguatoxin-carrying fish most commonly ingested include the jack, barracuda, grouper and snapper.

Symptoms, which usually begin 15 to 30 minutes after eating a contaminated fish, include abdominal pain, nausea, vomiting, diarrhoea, tongue and throat numbness, tooth pain, difficulty walking, blurred vision, skin rash, itching, tearing of the eyes, weakness, twitching muscles, inco-ordination, difficulty sleeping and occasional difficulty in breathing.

A bit of Cayman history

Christopher Columbus is credited with discovering the Cayman Islands in 1503. However, the appearance of the three islands on the Cantino planisphere map, published in Lisbon in 1502, raises doubts as to the truth of this.

Various names have been applied to the islands, including Las Tortugas (turtles) and Lagartos, referring to either the seawater crocodiles or the iguanas which are native to the islands. The name Caymanas, from the Carib for a seawater crocodile, was used from the 1740s onwards.

The Cayman Islands became a possession of the UK, following the signing of the Treaty of Madrid in 1670. They remained largely uninhabited until settled through the 18th and 19th centuries by a variety of peoples, including pirates, refugees from the Spanish Inquisition, shipwrecked sailors, slaves and deserters from Oliver Cromwell's army in Jamaica. Administered from 1863 as a Jamaican dependency, in 1959 the islands became a territory within the Federation of the West Indies. When this was dissolved in 1962, Jamaica chose to become independent but the Cayman Islands opted to remain a British dependent territory. Now a self-governing British Overseas Territory, the British Foreign and Commonwealth Office appoints a Governor to the Cayman Islands as the representative of the Queen.

Since the enactment of the Bank Secrecy Act in 1970, the Cayman Islands have emerged from obscurity and are currently the world's fifth largest financial centre. The islands print their own currency, the Cayman Islands Dollar.

A classic sign of ciguatera intoxication is the reversal of hot and cold sensations. Unfortunately, many of the debilitating symptoms may persist in varying severity for weeks to months. Treatment is, in the absence of a specific antidote, for the most part symptomatic. Intravenous mannitol 1g/kg effects a dramatic reversal of neuromuscular symptoms with a slower resolution of gastrointestinal upset and abnormal heart rhythms.

Vibrio infections The gram-negative bacilli of the genus *Vibrio* are indigenous to the marine environment and are natural flora of shellfish. Thriving in warmer temperatures *Vibrio* species cause infections in humans ranging from otitis to gastroenteritis, septicæmia and meningitis and should be suspected in patients presenting with fever, shock, wound infections or pneumonia where there is a recent history of immersion in salt water.

Among the most common injuries from marine life seen in accident and emergency departments are coral scrapes. The surface of coral is covered by soft living material, colonised with *Vibrio* species. This is easily torn from the rigid structure underneath and deposited into a scrape or cut.

Treatment is with gentamicin or a fluoroquinolone. An audit carried out in conjunction with the Caribbean Epidemiology Centre found this to account for the high incidence of the use of single 400mg IV doses of ciprofloxacin in A&E, based on a misunderstanding around oral absorption and tissue distribution, coupled with a local belief in the greater benefit of an injection over a tablet.

Decompression sickness First described in 1841, decompression sickness (DCS) is a disorder resulting from reduction of surrounding pressure, as in ascent from a dive, and caused by the formation of bubbles from dissolved gas in blood or tissues. Called "the bends" by early investigators, DCS is usually characterised by dull limb pain or exceedingly variable neurological symptoms (ranging from mild paraesthesia to major cerebral problems), or both. Recompression with the objective of compressing the bubbles to asymptomatic size, redissolving them and restoring adequate oxygen to the affected tissues, is imperative and must be accomplished as soon as possible to avoid serious and lasting injury.

During recompression adequate fluid intake and monitoring is important, with 0.9 per cent sodium chloride the fluid of choice if IV therapy is required. Bladder paralysis and the need for catheterisation are possibilities that should be considered. Dexamethasone may be indicated for reducing central nervous system swelling and controlling oedema, especially where the response to recompression is inadequate or delayed. Sedatives and narcotics should be avoided or, when urgently needed, used in minimum effective doses due to the potential to obscure symptoms and cause respiratory depression.

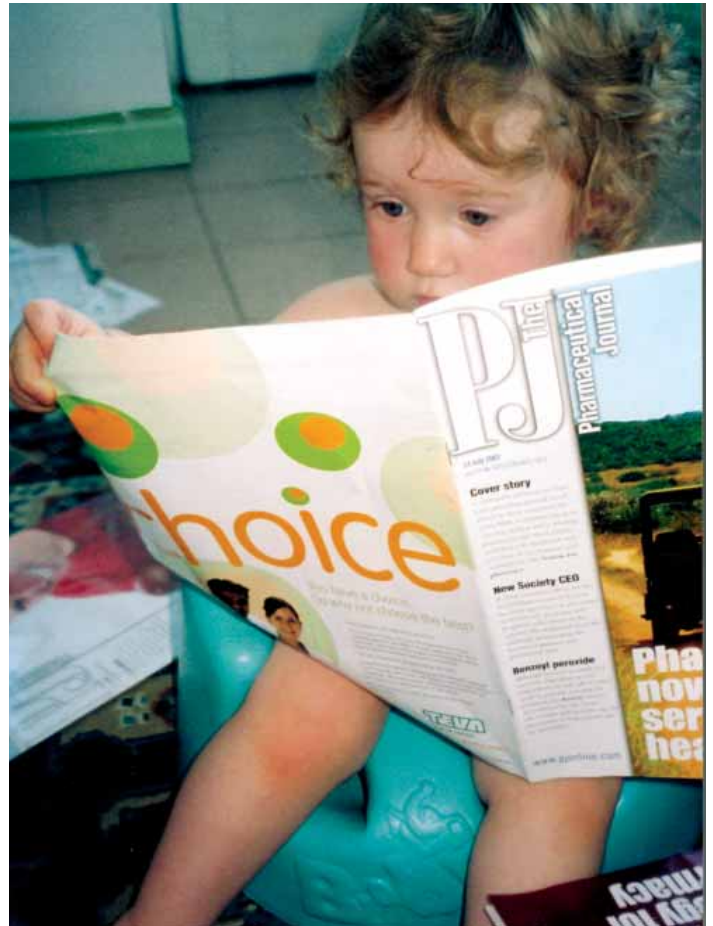
The Cayman Island Hospital has a two-person, double-lock recompression chamber staffed by a 24-hour on-call team of trained operators and supervised by a physician experienced in hyperbaric medicine for treating diving-related accidents.

Carpe diem

I would encourage any pharmacist or pharmacy technician, given the opportunity, to try working in another country. Pharmacists and pharmacy technicians registered in the UK are eligible for registration with the Cayman Islands Health Practitioners' Board, via the Pharmacy Council. Any vacancy must first be advertised and offered to suitably qualified Caymanians, of which there are few. There then is a preference for recruiting personnel of Caribbean origin, if this is unsuccessful the position is open to overseas candidates, most often these are from the US, Canada or the UK, all of whom must satisfy not only the prospective employer but also the Pharmacy Council, as to their ability and suitability.

For information about working in the Cayman Islands, contact: Cayman Islands Health Practitioners' Board, PO Box 915GT, Grand Cayman, Cayman Islands, British West Indies (tel: + 345 949 8600). Information about working overseas is also available from the Royal Pharmaceutical Society (www.rpsgb.org.uk)

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