Kareen Dunlop

RN.ND. Dip Herbal Med. Grad Dip Acupuncture
Grad Cert Nursing Education. Cert Infection Control

Nursing Education
Naturopathy
Acupuncture
Herbal Medicine

Khmer Soviet Friendship Hospital Report

December 2017

51 Lemon Gum Drive
Baldivis WA 6171

Mob: +61 41 99 456 91

kareen.stuart@yahoo.com.au

Table of Contents

National Infection Control Conference participants

The Central Sterilising area now with an actual linen cart (they need more) but at least it is not now sorted on the stairwell and carted on patient trolleys. I was so happy to see the closed doors segregating the various areas of the department from dirty and clean.

Executive Summary

Returning to the Khmer Soviet Friendship Hospital in Phnom Penh, Cambodia where I have been volunteering my time over the last three years, is always with a little bit of trepidation to see if they have managed to sustain what I have taught them as I was repeatedly told by westerners that I would never change them. I must say I have been pleasantly surprised to see that there has been no regression of health care and even improvements in the operating suite. I think one of the key factors of the success of my work, has been not only the real want to improve the hospital by their Director, Prof Meng and his deputy Vicheth but the formation of a Nurse Leadership Team and my continued mentoring of them at a level they can do.

During my previous time there I noted there was a great lack of infrastructure to support hand hygiene, one of the most fundamental principles of healthcare. Applecross Rotary had agreed to support a global grant Hand Hygiene Project so along with the support of a great team of local Cambodian's we have had automatic taps, basins, liquid soap and paper towel dispensers, instrument washing sinks, a backup water pump, public hand hygiene and kitchen sink station installed. I was supposed to return in October, 2107 as part of that project, however the hospital did not have all the public hand basin/kitchen sink in so I ended up tacking that week on to the beginning of this three week period for simplicity's sake. My first week was spent mainly auditing hand hygiene, ironing out any problems and checking that the project was complete. It has been very pleasing to see on this trip that the majority of staff toilets and clinical areas now have working hand basins with liquid soap. Nursing staff in general that we audited were washing their hands however the medical staff were mainly using alcohol sanitiser (an initiative I had installed in February 2016). Medical staff were also wearing long sleeved coats, watches and rings that meant they were unable to perform hand hygiene correctly. Training initiatives have been put in place to improve this. I also attended the orthopaedic nurses meeting with Mr Tim Keenan on the Friday of that week.

The following week Nurse Unit Manager, Samantha Jenaway joined me. The hospital thankfully supported our two national conferences that week – Fundamentals of Operating Theatre Nursing and The Role of Nursing, where we had approximately 110 nurses from all over the country. Both of us also presented at the Calmette Hospital expo. I sat down with the new Chief of Nursing, as Sovannarah retired that Friday (following a minor stroke) to teach him how to manage staff by doing a formal performance review. That weekend we had a lovely trip down with Meng Sok to Siaknouville on the sea coast with plenty of crabs to eat.

The next week I spent quite a bit of time meeting with the medical team who support the doctors, to begin encouraging them to report hospital infections. There is a new deputy director, also by the name of Chan Vicheth who is the chair now of the infection control committee. He is a dentist by trade, so I sat with him to teach him the basics of infection control and the importance of reporting infections to have a base line. We also tried to use a formal process to select a new infection control coordinator as the incumbent, Nita was moving to Perth for two years to undertake her masters in public health. At the end of the week I held our second national infection control conference with 150 participants.

The final week we visited the Childrens' Surgical Clinic at their request to feedback to them areas they could improve. A young orthopaedic surgeon from England visiting there had developed a very simple patient information system which is easy to monitor patient infections. Hopefully this will be copied across to the Russian Hospital and I have enticed them to do this by telling them we would find a computer for each department. One of the local Rotarians, Chris Merritt also visited the hospital and we are hoping that a rotary group from the US will take on a waste management project – the next area for improvement.

My major focus this trip was to teach them how to report hospital acquired infections and to set the nurse leadership team up with some management tools to assist them to manage their staff. If I am to believe the latest report from the statistical team there death rate has dropped by over 30% since my initial visit, so I am extremely pleased with that. The government have set this hospital up now as the lead hospital for all other hospitals to follow. I now plan to not return for two years mentoring them online from Perth, while I focus on my own growth, both financially and knowledge wise (I plan to start doing my masters in acupuncture research the middle of 2018). This will be a large test for them, however I feel that I have managed with the support of many to set their hospital and many other senior nurses in the right direction. Now I wait with bated breath to see how they manage to stand alone.

Week One

My former time here already included a lot of training in hand hygiene. This has been carried on by the Nurse Leadership Team (NLT) whom I instigated and have been following my instructions in teaching nursing staff how to wash their hands and auditing wards on their compliance. Following implementation of basins, elbow operated auto stop taps, liquid soap and paper towel dispensers, rubbish bins and a poster showing how to wash your hands in Khmer (see picture to the right and the appendix for the poster) throughout the hospital as a global rotary project, I returned to Cambodia to evaluate the effectiveness of this initiative and train where gaps were noted.

Operating Room Hand basin now

I wanted to check if the NLT training has been sustainable and effective, so on my first day I secretively placed an ultraviolet visible lotion (Glitterbug) on surfaces throughout the urology ward and then later on all the nursing and medical staff's hands in that ward. Two hours later Pak Sopheak, the Staff Educator and I went round with the ultraviolet torch to check if any of the staff had washed their hands in that period. Interesting Sopheak told me that this particular ward was the worst when they audited previously. So I was pleased that all the nursing staff showed 100% compliance, however not one of the doctors (including medical students) had washed their hands with soap and water. Some told me they had used alcohol. So we had an impromptu class on the difference between alcohol and liquid soap and I later gave a class that afternoon on that subject to the ward. Alcohol is not a cleaner and does not kill some spores such as C.diifficle a common spore causing much issue in hospitals. I noticed this same misunderstanding in the Surgical Intensive Care Unit and Operating Rooms when I audited all staff including doctors. Alcohol hand rinse was the first, cheapest and easiest hand hygiene method I was able to introduce at this hospital two years ago, prior to the hand hygiene project. It is pleasing to see staff using alcohol however I have asked the staff educator to continue training staff on each ward to educate them about when to use alcohol and when to use soap. As part of this education I have designed a when to use soap and when to use alcohol poster (see appendix) that the Infection Control Coordinator (ICC) will translate and add this to their yearly training calendar.

Missed area of hand hygiene showing up as fluorescent blue in the UV lit area

Teaching the doctors in the Operating Room

Again when auditing the nurses in the operating rooms on all three floors all bar one had excellent hand hygiene (as I hoped as I have taught them previously 1 ½ years ago). So it was great to see their sustained compliance with this. The anaesthetic doctors when I tested them were over vigorous with their hand washing when they knew they were being audited and all did very well. However I did point out to them that I was sure they did not spend so much time washing their hands when not being audited, which raised a few laughs. The Nurse Leadership Team have not done any auditing in this area at all, which is an area for development. I have asked them to do a secret glitterbug audit to check for cleaning and hand hygiene there later in the year and taught them how to evaluate and teach where the gaps are.

I later evaluated Sopheak's training to feed back to him any improvements. He did well with his on the job training and the only area I could suggest to him was to include the patients if they showed interest (which some did). Another issue I found, especially amongst the ward doctors was the use of long sleeved doctors' coats, wrist watches and wrist prayer bracelets (from the monks). This meant they could not wash their wrists. So I have added a "bare below the elbows" training month to the nurses infection control strategic plan by using posters to encourage the medical staff to change this, teaching it and announcing it at doctors and nurses meetings (see appendix). I also have asked the head doctors of those areas I have audited personally to adopt this strategy and mentor their medical students in improving their hand hygiene. Interestingly the surgeon on the infection control committee said to me that the nurses have vastly improved but the doctors need more training – not only in hand hygiene but in all areas I have been teaching. From a cultural point of view this is unacceptable to many of the medical fraternity for the nurses to be seen to be teaching doctors. I discussed this with the Director and he has agreed that the NLT can teach the medical students hand hygiene, so I hope that the on the job training is learnt by observation from the doctors and reading the posters. I've also sent my training lectures to the surgeon in question so he can learn this knowledge and then discuss at the Infection Control Committee and Technical Office as to how they will disseminate this information to the medical staff. Unfortunately many medical staff may have bribed their way through medical school and therefore their understanding of many fundamental hygiene principles is lacking. Long term basic medical upskilling is greatly needed in healthcare there.

Thai Sovannara the first Chief of Nursing retired this week following a minor stroke. On my first visit the hospital did not have a director of nursing so I had sat down with Prof Meng to show him how to organise the structure of a hospital. On my next visit I found they had installed Sovannara in the role of Chief of Nursing but had not told him what his job was. He unfortunately was overwhelmed and the board were quite displeased with him. When I sat down with him he got tears in his eyes when he realised I understood his predicament, and I felt terrible that I had presumed they would know what to tell him to do. A big learning curve for me. I have since learnt never to presume knowledge up there or understanding but to look for action to show they actually understand me. He has been a lovely leader to the Nurse Leadership Team (NLT) and they will miss him.

Sovannara retiring from his role of DoN. The team now have a big office

On the Friday of this week In Many a local nurse had organised the annual orthopaedic nurse meeting for approximately 35 nurses from various provinces which Mr Tim Keenan and I attended. It was lovely to see so many familiar faces and answer their questions. Boun Suthea presented my sterilisation lecture at this meeting and In Many my communicating with patients lecture. I have discussed with these two the

Presentation of certificates at the Ortho Nurses meeting

importance of actually producing their own lectures in Khmer rather than reading an English written lecture so that they and the participants better understand their topic. I find so much is lost in translation. For example at one of Sam's presentations the next week at Calmette the only reason we knew something had been translated incorrectly was when one of the nurses asked us why intravenous cannula's caused cancer! The translator had got it quite wrong but fortunately we were able to correct that sentence. The mind boggles at what they may have heard in the past. Many lectures are copies of an english written lecture spoken by a Cambodian person – copying another's work is not at all considered bad form let alone plagiarism up there.

That day I had a call from the Australian Embassy to ask if I would check on an Australian prisoner who was in the hospital with a broken hip who they were quite concerned about. As he had no family they were wondering if I could recommend someone to go in on a daily basis to wash him. So after the meeting I gathered some towels, soap, food and water and made my way back to the hospital. However after much toing and froing I was eventually told he had been sent back to prison with his surgery already done. In the meantime I had asked a young student nurse in her third year if she would do that for a small wage. He was returned to hospital later that week and unfortunately passed away a week later.

The weekend as per all spare time there was spent meeting up with my many Cambodia friends. Sam Jenaway arrived on the Sunday and we got to go to one of their homes for lunch. Unfortunately she ended up rather ill following a bout of food poisoning which I had a little the next day. Cambodian belly is quite common for foreigners up there.

Week Two

Some of the Fundamentals of Operating Room Principles conference participants

Week two started off with ensuring everything was in place for the two full day national courses Sam and I were presenting this week. As we were unable to find any sponsors to cover the cost of the lunches and printing of our notes, thankfully the hospital agreed to do this. There is so much formality at conferences in Cambodia and they must be presented the one way. The dignitaries get invited to the front and we all stand stiff ramrod to listen to the national anthem. Opening speeches by the various officials follow, then a tea break and finally we get onto the reason for the day. Normally all speakers get 15 minutes to speak, so with Sam or I teaching the whole day is a little bit odd. They finish the day with all participants getting presented a certificate with a photo of the dignitaries. On the Tuesday I presented a Fundamentals in Operating Principles to 106 nurses from around the country. I elected to cover only the beginning fundamentals, planning to cover more of this in another visit, as if I give them too much information they just won't understand or be able to implement it. I started off with the purpose of an operating room, uniform policy, preventing transmission of infection, the operating room layout, scrubbing, gowning and gloving, cleaning of the environment, then cleaning, decontamination disinfection and sterilisation of instrumentation, how to set their instrument trolley up and finally an instrument count (so we don't leave anything like a pair of scissors in a patient!). There was a lot of questions with good interaction (bribed with sweets for answering).

On the Wednesday I sat down with the new Chief of Nursing, Pronh Somith and the Nurse Educator, Pak Sopheak who could translate for me, to do a formal performance appraisal of Somith using his job description (JDF). In my previous visit in April, the Nurse Leadership Team told me they had problems managing some of the staff. So this visit included teaching all the nursing staff their job description and then to teach Somith how to use this in a formal manner to manage someone who was not performing adequately. Somith was also having some issues doing his new role, so I wanted to walk through each part of his JDF and ask him how he thought he was doing. His main issues were in actually leading his team rather than being part of his team. I believe this may be a hangover from the Khmer Rouge days which he lived through, when you did not dare show leadership skills or you would be killed. I have left him with a list of duties to

do and areas to learn and am sending him leadership tips. I've also asked Prof Chan Vitchet to mentor him in leadership techniques, though this will take some reminding.

On the Thursday Sam and I attended Calmette Hospital's nursing expo where we both gave presentations. It was with pleasure that I saw the Director of the hospital give a presentation on how to communicate with a patient, as at a previous time I had given a training day on how to communicate, care and show compassion at his request. He was encouraging his staff to act in a very servile manner as this hospital has both private and public patients and had been in the news for not bowing and scraping enough to their patients. There was the usual paparazzi around the Director being a friend of Hun Sen's. Sam's talk was on post-operative documentation and mine on pre-operative skin disinfection. As mentioned previously we had a little giggle at the translation during Sam's talk when obviously the translator had said that putting a cannula in could cause cancer. Thankfully someone questioned it during the break and we were able to correct it.

At Calmette Hospital Nursing Expo

On the Friday, Sam presented a training day on the role of nursing and their job descriptions. She covered professionalism focusing on the area's we noticed needed improving such as arriving on time, wearing a clean uniform and not talking on the phone in front of patients. She then went through all the job descriptions of nurses focusing primarily on the registered nurse so that this can be taught and focused on by them. In the afternoon Sam went over patient monitoring, documentation and how to hand over your care to the next shifts nurses. My role was to dress up in professional uniform and show how to wash a patient, which is something nurses don't do there. I used my staff educator for this which was a lot of fun.

Role of Nursing and JDF conference participants

That weekend, Sok a gorgeous orthopaedic surgeon and friend took Sam and I down to Siaknouville where we met Mr Tim Keenan for a beachside dinner and brought him back with us to Phnom Penh the next day. It was a lovely relaxing time with crabs on the menu, sand under the feet, skinny dogs looking for a dropped morsel and the beach side sellers with their wares. We weren't so sure on the cleanliness of the place but thankfully only ended with minor belly issues. Unfortunately Sam had caught a cold, coughing a lot which she dutifully managed to pass onto me. It followed us home and we both ended up on antibiotics and foul tasting herbs for it. We were invited to Somith's wedding on the Sunday evening, a marvelous colourful affair, with numerous wedding clothe changes. The invitation comes with a little matching envelope of which you put your monetary gift in to present at the wedding. John Kevan, from Applecross Rotary arrived that Sunday afternoon so he too got to see his first Cambodian wedding. We were greeted by the bridal party who stand at the front of an ornately decorated tent that blocks the complete dirt road. Photo's are taken with us before we go in and take a seat at a round table. As soon as your table is full you are served numerous courses of food that has all been prepared on site. There is always plenty of Angkor beer served with large chunks of ice (cut up by a chainsaw and of very dubious quality). Guests arrive in dribs and drabs while the bridal party stay out the front to greet them all. Only once all the guests arrive (and that takes over 2-4 hours), do the bridal party get to sit down. Speeches and dancing goes on until the wee hours for some, but many guests leave early to attend another wedding, and some guests like the Director of the hospital arrive just for a brief visit.

The new Chief of Nursing, Somith's wedding

Week Three

This week we focused more on infection control checking the cleanliness of the hospital and talking a lot with the deputy directors who control various parts of the hospital to educate them and get them understand the role of infection control in the hospital. In walking around the hospital and checking some of the hand basins, some are delightfully clean (mainly the patient rooms) and some departments need better cleaning (especially the public toilets which smell dreadful). I met with the housekeeping supervisor, Soborn to ask

him if is he able to check all the hospital in one day, however after much discussion he told me he has two jobs which includes working in the hospital kitchen to prepare the meals for the patients. This takes four hours out of his six hours a day, which leaves little time for supervising cleaners. He is also an older chap who prior to me visiting his kitchen, said he did not want a hand basin put there! The kitchen is incredibly old and dirty and in grave need of a rebuild (however low on the priority list) with no hand basins including for the toilet. It has dirt floors, numerous vermin scurrying around and very primitive cooking facilities. So I very much doubt his ability to even know what cleanliness means. He also has not attended my cleaning lectures previously. The staff are often found outside playing petanque or sitting under a tree (the Directors refer to many in the hospital as lazy). Many Cambodian's seem to be quite content living from day to day with very little as they would have 500 years ago, however I wonder how much of this is fear to show any riches or knowledge from the Pol Pot days and the previous regimes before. They are also taught by the monks to be content with their lot and not want for more. It took a whole morning to get Soborn on side and to agree as to where we could put a hand basin. Something that would take me five minutes, but I've found I need to give them the time to make the decision and so understand the purpose of the change (change management up here is something else). I liaised with the plumbing company to organise two hand basins and these have been put outside the kitchen and by the toilet since my visit. The ICC and Nurse Educator are going to teach the kitchen staff when and how to clean their hands and also how to clean on January 26. This will take some time for them to understand what bacteria is, how it causes a problem in a hospital and therefore how to stop transmission. Simple things like not touching raw chicken and then your salad leaves is unheard of there. Even amongst the so called educated nurses there I found this knowledge sorely lacking.

Very decrepit conditions for the hospital kitchen which is greatly in need of an upgrade

I have asked the Director to separate Soborn's job and with the Nurse Leadership Team to select the best cleaner in the hospital and organise to give them the position of housekeeping supervisor. I have previously

Talking with Soborn

trained all the cleaners and the hospital has improved greatly in its cleanliness, though some areas still require improvement. I have written a job description for this position, as being a new job, if there is no list on what to do they will not know. On arrival there was a public toilet block on the orthopaedic floor outside the Surgical Intensive Care Unit, which was filthy and smelled dreadful. The doctor on that ward told me it was dreadful, but they seemed unable to know what to do. A simple discussion with the Deputy Director responsible for hygiene, to teach him that the number of cleaners in area's needs to be based on the frequency of use and to ask him to have that toilet cleaned every two hours has made a lovely difference in walking past it now. I have also requested that the public HH station be cleaned every two hours, as I know if the Directors see it messy then they will think they should not have them. During my month at the hospital this has occurred and been kept clean.

As per any western countries, the glamour of hand hygiene is something the infection control team are always pushing. And so it is in Cambodia. Nita, the ICC understands this well, however she has not understood how to analyse the data she has been collecting in soap usage and especially in health acquired infections. I spent the third week in Cambodia focusing on this subject at both a national level where I taught 150 nurses, as well as her (as she was away my first week up there), so that we can gather some real data. She has collected soap usage data and I have shown her how to input this onto a spread sheet each month so that she can see easily at a glance any trends in the use of soap and follow up immediately any untoward trends with the department concerned. I noted that the infectious disease ward used no soap and she has informed me that they are donated some by a sponsor. The hospital used to work so disjointedly and hide anything they were given from others so they had enough equipment on their ward. So it is taking a lot of effort to get them to work as a team hence one of the reasons behind having a Nurse Leadership Team. I note when I walk into the hospital with a box that any staff who see me really want to know what is in the box so they could ask for it!

Finish of the Hand Hygiene Project

On the Tuesday John and I formally handed over the large hand washing sink to Prof Lim Taing on behalf of the rotary project. We then attended the local Phnom Penh Metro Rotary meeting and presented the finalization of this project. It was lovely to meet this very small group and their new president, Sotheara, a young 28 year old male. He had just finished publishing his first book which he is giving to Rotaract and charities so they can sell it to raise funds. It is a delightful book full of moral short stories written both in Khmer and English

and gives quite an insight to the way the people think. Superstition and the concept of good luck is very important.

Members of Rotary Phnom Penh Metro, Applecross and Hand Hygiene Team

Back Row: Suon Sotheara (current president of RPPM), Sam Brem (assisted installation of taps), Nao Kimsrun (PTE plumber responsible for managing the project), Sam Jenaway (nurse from Royal Perth Hospital), Kareen Dunlop (author of this document), Korean visitor.
Front Row: Chris Merrit (Rotarian), Rotarian member, Michie Nishiguischi (president of RPPM during the project), John Kevan (Rotary Applecross), Korean visitor.

On the Wednesday I had organised a meeting with Chan Vicheth, a dentist and new deputy Director to teach him the importance of reporting infections. He has been appointed as the new Infection Control Committee chairperson as the previous doctor retired (though apparently he still attends meetings – quite a feat as he didn't want anything to do with me or infection control to begin with). That took a gift of a bottle of whiskey to turn our relationship around. As is often the case he didn't have much time for me to discuss this with him, as another meeting had been called which he had to attend, so I emailed a lot of my notes to him and I can only but hope he reads them to educate himself. He seemed to actually know what infection control was and had complained to Taing (whom I mainly used to report to) that they needed to do much more in reducing infections, though Taing told him they had done enough.

On the Friday I held our second annual Infection Control Conference with the main topic being the reporting of hospital acquired infections. I started off with a quick review of infection control principles and

left time for questions at the end of this as there was a lot of new nurses from other hospitals attending. I find it important to ask questions during the lectures, one to keep them attentive, but secondly to ensure understanding of my material. Correct answers were always rewarded with a sweet or pen. I had asked two of the deputy directors to attend that are responsible for reporting statistics so that they could support the ICC in her endeavors to stop them from hiding infections and actually get a baseline to know what works for them. The concept of shame is very huge in Cambodia and therefore to admit to causing an infection or let alone their death is something they really do not like to admit to, because they live with this shame for the rest of their life. Prof Meng told me that if the government find out they will just blame him Nita told me that when she went to the ward to ask if there were any patients with a hospital acquired infection she was always told no. I have taught them now to ask daily if any patient had a new fever.

Infection Control Conference dignitaries

As Nita was moving to Australia for two years to undertake her Masters in Public Health (a scholarship she received from the Australian Department of Foreign Affairs) I had been asking Lim Taing and the Nurse Leadership Team to find a replacement for her so that I could start teaching them as soon as I arrived. However true to form it hadn't been done, so I suggested I use the job description to advertise this position and then appoint the position using a formal interview process. This was so I could teach the hospital how to use their job description and get the right person for the job. Well that was an interesting process. We had three applicants, two of whom met the selection criteria. After going through all the process's the Director still had the final say and the most appropriate candidate, a young Dr who had done my course was not selected because he couldn't believe that a Dr would take the position for such a low wage. So the second candidate was eventually "persuaded" to take the position – she got cold feet after the interview and would only take the job if the Director told her to.

New (on the left) and the old hospital buildings

A new hospital building had been completed by the time I arrived with three wards including Ear, Nose and Throat, Ophthalmics, Neurology and Outpatients on the ground floor. The Directors moved to the top floor and now the Nurse Leadership Team occupy the old offices (much bigger than their previous one). During this weekend one of the rotary containers from Brisbane arrived with over sixty hospital beds in it. These were unloaded and taken directly to the new wards. So hopefully now they will be able to start using some on those wards.

Week Four

On the Monday of the fourth week, Mr Jim Gollogy from the Children's Surgical Clinic had requested that I visit their clinic to suggest improvements and advise what processes I had put in place at the Russian as apparently it is now deemed not only by the Ministry of Health, but by the locals as the best public hospital to go to. Five of his staff had attended my Infection Control Course in 2015 and in his own words, "he was quite surprised at how much they learnt from me". Jim is a colourful character with a booming voice and a heart of gold whose clinic sees a lot of poor patients. They have a very busy eye clinic and thankfully he has quite a few visiting doctors and charities who help him out. One of them, a young English orthopaedic surgeon, Saquib had written up a very simple easy to use online patient information system which would be very useful to the Russian hospital. He agreed to share it with me so I have asked Dr's Roumanny and Vanthonn from the Russian to meet with him to get a copy of it and adapt it to use at their hospital, as their patient systems are all still done by paper – a very labour intensive task. I've dangled some computers, one for each department if possible in front of them if they do it. It was lovely to see that Jim had made some changes to his practices since I last visited there.

Back at the Russian hospital audits of hand hygiene have been done since I had left but no analysis had been done of the data. I sat down with Nita to show her how to analyse the data by looking at where on the whole deficits have been. This has been in the area of nail cleanliness, chipped nail polish and long nails (having one long little finger nail is reasonably common amongst some of the Cambodians). When I asked why she said maybe it was to pick the nose!!! Therefore I have encouraged her to do some education in this area by using agar plates to gather the flora from the nails to culture and report back what was found there and more glittlerbug training as it shows up easily in long nails and chipped nail polish. This visual demonstration will be the best way to train the offending staff. We have also discussed how to manage the staff who are poor at hand hygiene when being audited (I normally find this an attitude problem) using an informal and then if needed formal performance management process. This was another area of training I have done with the Director of Nursing and Staff Educator to begin with and then asked them to teach this method by performing an appraisal with all the charge nurses one by one.

In Cambodia there is a great divide between the poor and the rich, and many doctors think that it is impossible to teach the poor hand hygiene. In Cambodia the family accompany the patient to hospital, and live under their beds, in the corridor and stair wells. They provide the patient with food and perform their basic care. Due to this there are huge numbers of extra people in the hospital, let alone that they run the hospital at 120% patient occupancy. I had been told by the local doctors that I would never manage to get them to wash their hands and that they make such a mess. They were quite resistant to putting in public hand hygiene stations and it took some time for it to be approved to put one at the front of the hospital.

This would have been a wonderful public health initiative, however on the day it was installed a very high official from the ministry of health arrived, saw water on the concrete floor outside and demanded it be removed. Beauty of buildings is considered very important there! Therefore it wonderful to see the first public hand hygiene station including kitchen/laundry sinks finally installed in a courtyard between the Medical Intensive Care Unit, Paediatric, Maternity and Outpatient wards. Prior to the installation of this HH station they washed their cutlery, plates, pots and laundry in the toilet hand basin if there was one, or under the shower hose that is used to wash themselves after toileting. On the first day that the HH station was installed I was so pleased to see the family using it after using the toilet and using it for their laundry without prompting. There are a lot of small children running around this courtyard too, so Nita's husband Sophea drew up a children's poster too in Khmer showing by picture when to wash your hands (see appendix). This has been placed below the chart showing how to wash your hands. I have discussed with the Directors the use of family rest areas for each major building, where a HH station, toilet and rest area can be combined and he agrees with me. I'm not sure how much of a priority this will be though.

The first public hand hygiene station

At the back the kitchen/laundry sink

One of my issues with the Nurse Leadership Team was their absence from the hospital quite frequently where they may be working at the local university, the courts where the last Pol Pot soldier or someone in their family was sick. I discussed this with Meng, Taing and themselves and much to my surprise they and I were called to a meeting with the Director, where he reiterated my coaching that they must be role models, lead from the top and any outside work must be done outside their normal work hours. I often found Nita was the only one in the hospital. Unfortunately the little money that they get extra from their outside work is very necessary, so I understand their reason why. Sopheak had said to me that he really needs it to support his extended family – he cares for his nieces as well. I have been unable to persuade the hospital to pay them more, as apparently they get paid better than some of the doctors there. However the doctors can leave at lunch time and go to their own clinics, so their role modeling is poor. Nita has told me their wage was enough, though she gets an extra $100 per month from the government as she has a degree.

One of the local Rotarians, Chris Merritt spoke to me at their meeting saying he had learnt more from me in ten minutes that in ten years in the country. He said he had a rotary group in New Hampshire who were looking to support a global grant project and did I have another one in mind?! Well that wasn't a hard answer as I had already visited the Deputy Director, Chan Vicheth (2nd in command) who agreed with me on their needs. The next on my long line of issues to improve was waste management. The hospital has an incinerator that was installed in the 1940's however it bellows black smoke over the neighborhood and government officials have complained so they don't use it. At the back of the store rooms, where the rotary medical equipment is kept is a huge rubbish dump. The local kids and adults scavenge through it and I'm sure catch all sorts of diseases with Hepatitis B being very rampant in the country. The local rubbish trucks do come every so often to collect the rubbish, however a method of dealing with their clinical (infectious) waste and a way to get the rubbish down to the ground floors would be very advantageous let alone basic improvements at the site of use. Sam took him around the hospital so he could send them some photos and then we visited with Vicheth to introduce them. I sat down with him to go through what I thought the basic needs were and how we managed to pull of the HH project. Since then I have managed to acquire the help of a Perth nurse who specialises in infection control and her husband who used to run a waste management business to lead the project. They meet with me for more information in February and then will visit Cambodia early May. I've also put in place a couple of local people to assist them and the Hollis Brookline rotary club in New Hampshire, USA have agreed to take the project on with the local rotary club supporting it.

My last day was spent giving each of the NLT a list of tasks that I want them to achieve over the next two years. I asked them to put this into a strategic plan like I had done with them the past two years, and much to my delight they have done it reasonably well since I returned home. I have asked Vito, the manager of the operating suite to mentor the Chief of Nursing, Somith teaching him how to show initiative and make decisions more readily. He is so scared in case he makes the wrong decision. I have been immensely impressed of what Vito has taken on from my teachings and has really made a huge difference to the operating suite and in return I am sure to their post-operative death rate. If I am to believe the figures I have been given, there is a significant drop in them of more than 30%. Even a French surgical team have since sent me a message to say how much they have noticed the difference. The hospital has three floors of four operating rooms each. Previously they used to wash their used surgical instruments and bloody surgical instruments in the same sink that the surgeons scrubbed their hands in prior to surgery then taken back into the theatre while the patient was still there to pack. This meant there was a high chance of contaminants from one patient's blood being splashed onto the surgeon hands during the hand scrub procedure, or the instruments being recontaminated whilst being taken back into the theatre. I have been teaching them the importance of segregation as a means to reduce transmission of disease. In 2015 a Central Sterilising Department was built on the first floor, however I could not persuade the staff from the two top floors to wash their instruments there. Rather than tell you why they just nod and say nothing. I've since learnt this is because there is only one circulating nurse per 4 theatres so they could not afford to leave the floor! Normally there is one per theatre, however if they put more staff on the amount the theatre gets paid gets distributed between less staff, hence no one wants more staff. As part of this project, deep instrument

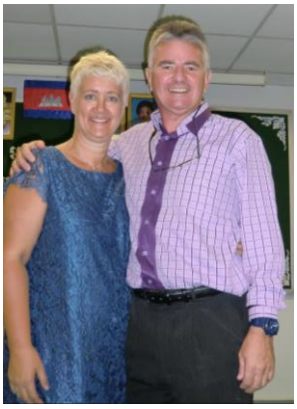
washing sinks (one for mops, washing then rinsing instruments) and a bench were installed in a separate washing room on the two top floors so the instruments could first be cleaned, then rinsed and put in a tub of disinfectant to decontaminate them prior to being rinsed again and then packed for surgery. These sinks are being used in the manner they were designed for and is totally successful in its implementation. A hand basin has also been placed in this area and it is great to see it being used no longer with bar soap which harbors so much bacteria from person to person.

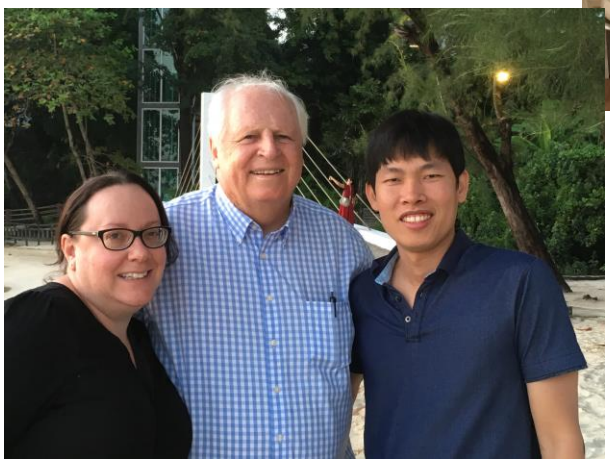
Washing surgical instruments in the new basins

Leaving Cambodia was a sad affair, as I have planned not to go back for two years due to my health and desire to undertake further studies at Notre Dame this year. I have told them I will still mentor them online and by video calls, as I have done, but I wish to see if they can sustain my teachings for a longer period now. I have told them they are no longer babies but toddlers so now they must start to walk on their own. The board of directors have been, at my suggestion undertaking studies in health management and I hope that they will continue to improve. The one concern is having Nita here and a new infection control coordinator there, though Nita has said she will mentor her from here too. I am extremely pleased to see her actually being willing to challenge the Director now on hand hygiene – something unheard of two years ago. Many nurses lived in fear of the doctors and especially the Director, and did what they said no questions asked, or if they couldn't do it still said yes and walked away not doing it which led to much frustration from the Directors. I'm pleased to say with much mentoring on both sides this is changing, especially amongst the Nurse Leadership Team. The day after I wrote again another email to the Director suggesting he must work with his doctors to encourage them to work as a team, he had a meeting with them to say that, so it's great that my suggestions, where able, are being followed through.

Acknowledgements

I would like to formally thank the Osborne Park Rotary club who have supported the cost of this visit and without which I would not have been able to go. Thanks must go also previously to the Australian Orthopaedic Outreach Program who have supported me formerly. I would also like to formally thank Sam Jenaway, a Nurse Unit Manager from Royal Perth Hospital in Western Australia who has accompanied me for part of some of my journeys to Cambodia and assisted me in this and other projects there. Her pragmatic assistance enables me to get on and do what I need to. My husband Stuart, who stays behind to keep the money rolling in and understands the importance of my work up there also deserves a big thank you. Finally my thanks must go to the many Cambodian people whom I work with there who have listened and followed my suggestions. As they say, " I wish you good luck".





Appendix:

Alcohol versus Liquid Soap Poster:

Bare Hands Poster:

All staff who work on ward or see patients must be

BARE BELOW THE ELBOW

So you can wash your hands and wrists to prevent transmission of infection

Adult Hand Hygiene Poster:

If you have any question please contact **Infection Control Coordinator (ICC) :077 855 377**

Children's Hand Hygiene Poster: