

Snippets from Vietnam  
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I have written down some of my experiences in Vietnam that are not included in "Vietnam Doc," or not explained in detail in "Vietnam Doc".

1. Ascariasis Lumbricoides. This is a roundworm that infects many Vietnamese. It can grow to a length of 15 inches. The eggs of the worm are taken in orally by a human. They travel to the intestine. Eventually in their growth they penetrate the wall of the small intestine, travel via capillaries and lymphatics through the hepatic circulation and through the heart and arrive in the lungs. We would wait until we had a Vietnamese patient to introduce a new CRNA to the worm. The CRNA would place the mask on the patient after the induction to administer nitrous oxide, oxygen, and probably halothane. The worms in the lung did not like the new vapors and would commence to crawl up the trachea and out from underneath the mask on the patient's face. We would all be outside the operating room door awaiting the "scream" and enjoying the "introduction to anesthesia in Vietnam" of the CRNA. All done in fun and no one was hurt.
2. When we had down time, many would play cards. One evening I was in the lounge area of our hut and someone had to leave who was involved in a bridge game. I had never played bridge but I was familiar with Rook. The game was explained to me and the cards were dealt. I picked up my cards and immediately knew I had an exceptional hand. I bid and then proceeded to get a "Grand Slam." No one would believe I had not played bridge before. I left the game after the "Grand Slam" and never played bridge again.
3. During my daily rounds of patients on ventilators I was standing by a young soldier who was in the intensive care unit

recovering from surgery. His right carotid artery sprung a leak and arterial blood was shooting out his neck. I immediately put my hand on the artery to stop the flow of blood and we took him to the operating room immediately. He did well and had a good recovery.

4. A young soldier was waiting in the holding section to be taken in for surgery as soon as a room was available. He started to have cardiac symptoms and a young surgeon passing by noted the problem and made the diagnosis of cardiac tamponade (an accumulation of blood between the heart and the pericardium). He quickly asked for a chest instrument set, prepped his left chest, opened up the chest, and cut the pericardium to release the accumulated blood and the patient did well. This was done without anesthesia of any kind as it was an emergency. The young surgeon saved his life.
5. The soldier had a neck wound which severed the right carotid artery as it enters the skull. He was having massive bleeding. An attempt was made to clamp the artery in two places, as it left the heart and at the entrance of the skull. The right and left arteries share a common circulation via a large artery in the skull called the Circle of Willis. An incision was made in the skull, the brain retracted, and the artery clamped. This didn't take long but he was bleeding large quantities of blood. We ended up giving him approximately 102 units of blood. He left the operating room alive and eventually was able to be sent home.
6. A soldier with a terrible head wound was waiting in the holding area for a room to become available. His lower jaw had been blown off and some of the anterior part of his tongue was missing. I was walking by and noted he was having trouble breathing due to blood accumulating around the opening of the trachea. I grabbed an endotracheal tube and was going to intubate him. The usual anatomical guidelines were missing so I wanted for him to breathe out and

“followed the bubbles” with the endotracheal tube. I was able to get the tube into the trachea by pulling the remaining tongue forward with a clamp, inflated the balloon, and he was able to breathe properly. He was taken to the OR and eventually sent home. Another life saved.

7. A Vietcong soldier was brought to the heliport outside our hospital. He was not immediately taken into the receiving area because he had live grenade lodged in his liver! The grenade had been shot from a rifle built for this purpose. The grenade was designed to explode on contact, but this one did not. Now what to do? We decided to built an “outside” operating room out of sandbags. It had a hole for the volunteer anesthesia provider to reach in and administer an anesthetic. There was a door for the surgeon to enter and remove the grenade and hand it to the munitions experts for disposal. Two volunteers, both single,, worked together to remove the grenade successfully and the grenade was taken to an area in Long Binh to be detonated.
8. We did a number of surgeries for orphans during the times we were not being hammered by casualties. The local orphanages awaited the call from our chaplain and we usually kept the child in the hospital over night for recovery.
9. We encountered only one case of malignant hyperthermia during my time in Vietnam. A young soldier had a neck wound requiring surgery, During the surgery he developed a very high temperature. We took him to the recovery room and put ice on his chest, armpits, and groin. We also gave him large doses of Xylocaine and put ice water in his stomach via a gastric tube. He did not respond to our treatment very well, so he was transported to Saigon where they had a kidney dialysis machine. He received dialysis a couple of times but died two days later. Malignant hyperthermia is a hereditary disease which was not understood in 1969. The death rate for the disease in 1969 was near 100%. Later a

drug was found that lowered the death rate to less than 10%, Today there is a test to screen patients that might have a family history of the disease. The syndrome in this patient was triggered by the halothane he received in the operating room.

10. A Vietnamese physician was referred to us by the hospital in Saigon for the removal of a rare tumor called pheochromocytoma. This tumor secretes substances in the blood that raise the blood pressure to critical levels. You have to be very careful during the excision of the tumor to not stimulate the excretion of the substance, thus raising the blood pressure. Our hospital was chosen to do this case because we had the best surgeons in the area. Being the Chief of Anesthesia and the only M.D. on the staff, I was chosen to do the anesthesia. I had done one or two of these cases during my residency training but under close supervision. I was able to borrow an arterial monitor for beat-by-beat monitoring of the blood pressure and was able to establish a radial artery line. The case went well and he had a successful recovery. We published an article on the case and it was accepted because it was done in a war zone.
11. The electrical outlets in our quonset hut was installed under contract by an electrical firm from the USA. You can imagine the level of skill from someone who is not in the military but willing to go to a war zone for work. A soldier had a very serious spinal injury in combat. He was in the prone position on the operating table. His spinal cord was exposed from the bottom of his neck to his coccyx. Ice had been placed in the incision in an effort to combat "spinal shock." An EKG monitor became available during the case and the pads were placed on the patient prior to plugging the machine into the electrical outlet. When the plug made contact with the socket sparks flew out and the plug was immediately removed. The patient however was literally lifted off the OR table by the electrical

shock, at least 1/2 inch and was in cardiac arrest. He was immediately turned to the supine position so cardiac resuscitation could be done. His heart returned to a normal rhythm. He was turned back to prone and the surgery continued successfully. He left the hospital. Examination of the socket showed the wiring had not been grounded properly.

12. Oxygen could not be piped into the OR and large oxygen tanks were used for anesthesia. One day during a mass casualty one of the anesthesia machines had to have its oxygen tank replaced. The corpsman brought the tank on the carrier but the tank had not been properly secured. In the middle of the room the tank fell to the floor and the control valve came open. There was a lot of hissing and wind. Surgeons and nurses stayed by their tables and immediately covered open wounds with sterile sheets. The corpsman responded immediately and turned off the control valve. If the valve stem connected to the top of the cylinder had been broken off the full tank under 2000psi would have caused considerable damage, perhaps even loss of human life, before it went through the wall of the quonset hut.
13. We had a medical officer transferred to us from a firebase. He had acquired an AK47 enemy rifle. He claimed this was a souvenir but it was against Army policy to take such weapons home. In the dark of the night he dressed up in a black suit and threw stones on the metal roof of the Commander of the hospital. Our Commander had been a tank driver in WWII. He came out with his pistol and would have shot the man if he could have seen him. It was planned to be a joke but it ended up being a stupid trick. Had he been caught he would have ended up in an Army jail.
14. An elderly Vietcong woman, who carried supplies on her bicycle down the Ho Che Min trail to South Vietnam, ended up in our hospital. She had open wounds of her legs that had

been treated by placing maggots in the wound and then wrapping the wound with a bandage. When the bandages were removed the wound was shiny and clean! The surgeon assigned to the case was a recent graduate of a cardiovascular surgery program. We discovered he had a lot of issues with competence. He prescribed 90 units of Penicillin VK, which contained Potassium. The ward nurse challenged him about the dose but he said ""I am the doctor and you are the nurse." The repeated doses of potassium proved to be too much for the elderly woman and she died of potassium poisoning. The case was discussed in morbidity and mortality conference and action was taken against the surgeon.

15. Under the articles of the Geneva Convention only certain healthcare workers were allowed to treat Prisoners of War. Since I was the Chief of Anesthesia I was the only one qualified to administer anesthesia in the operating room of the POW hospital. One day I was getting a 15yo Vietcong soldier ready for anesthesia for a wound closure in the POW hospital. I started his IV and was getting ready to put the mask on his face when he lifted up his head from the table and spit into my face. It surprised me and I felt sorry that he did not know I would treat him as any other patient. I just assumed he had been told by his commanders that he was to be killed in the POW hospital. I had seen the hate in his eyes as he entered the room. Note: On arrival POW's were operated on in the main hospital and then transferred to the POW Hospital.
16. Surgeons and myself were allowed to escort critical patients to Clark Air Force Base in the Philippines.. A roster was on the bulletin board and you knew when it was your turn. Before you left many of the staff would give you money to purchase items for them at the Air Force PX to be shipped back to Vietnam or to the USA. The Air Force PX had a catalog made so we could choose what we wanted to

purchase. Sometimes you left with up to \$4000 in cash. Once you dropped off the patient at the hospital you went to the PX and a clerk would be assigned to walk around with you and make sure all the packing and shipping was in order. The next two days were your own. I stayed at the Army Sanno Hotel. One night I went to see the musical: Madam Butterfly. The next day I toured the headquarters of General MacArthur in the Manilla Hotel. Then I went back to the 24 Evacuation Hospital, a little rested and ready to go to work again.

17. I was able to see the Worlds Fair in Osaka, Japan. Dr. Onji, a Professor of Anesthesia in Osaka had spent some time at the Department of Anesthesia at the University of Utah in Salt Lake City. I contacted my teacher at the University of Utah and got Dr. Onji's address. I contacted him and said I could come to Osaka and present a paper on Anesthesia for Trauma at his University.. We communicated and I eventually put in for orders to go to Japan for 7 days. I stayed at Dr. Onji's home and rode the bullet train from Toyoko to Osaka.. This is where I learned the World Fair was taking place and that Dr. Onji was the organizer of the medical service at the Fair. He had not visited the Fair since his initial involvement in planning and said he would like to take a day off and take me to the Fair. We arrived at the medical office and he was warmly greeted. After a tour of the medical site the Fair officials provided a guide and an ambulance for transportation. We went to the back door of the major exhibits and were given a tour of the exhibit by the director of each one. I avoided the crowds and saw more of the World's Fair in one day than what others would see in a week. While I was in Dr. Onji's home I was shown the Japanese Tea Ceremony by his wife and I slept on a wooden mat with a wooden pillow.
18. One night I was sleeping in my hooch and felt movement on my face. As I woke up I noted something crawling on my

face. I grabbed the object and threw it against the wall. It then turned on the light and found out it was a six inch cockroach!

19. Our living quarters were actually quonset huts divided into sections. My room and the adjacent room had a hole in the wall facing the outside of the building. Prior to my arrival someone had purchased an air conditioner and it was placed so cold air was blown into both rooms. I paid \$100 for my share of the air conditioner. I was lucky because the controls for the air conditioner were on my side of the wall! The air conditioner was a blessing during my stay in Vietnam
20. The bathroom and showers were about 25 feet from my hooch. In the night if I had to urinate I would do so just outside the door on some foliage. I was reported to the Colonel and had to meet with him. He told me if I was caught again he would have me sent to a firebase for the remainder of my tour!
21. When I arrived in Vietnam I found out the hospital had been given three or four cylinders of an anesthetic called cyclopropane. They were stored in an old shed next to the helicopter pad. Cyclopropane was on the list of "necessities" when the hospital was set up because the anesthesia machine in use at the time had a flow meter control for cyclopropane. Cyclopropane is very explosive and if one or more of the cylinders had been exposed to heat or fallen and broken off the control stem, the cylinders would have exploded. The shed would have been blown to smithereens and any helicopter on the pad would have suffered damage. When I saw three cyclopropane tanks, I instructed the corpsman to call the bomb squad and have them disposed of. I heard they made quite an explosion when detonated by the bomb squad.
22. Many of the ambulatory POW's upon arrival by helicopter at the hospital would walk directly to the POW hospital entrance without any instructions, we often saw the mama-sans

pacing off distance in the compound and this information was obviously passed on to the Vietcong and North Vietnamese troops!

23. The Red Cross had an office in our Hospital. The assigned civilian would write letters for the soldiers who could not write. Their visits to the wards was a great morale lifter. They also did a number of tasks for the soldiers and the members of our staff. It was a pleasure to work with them.
24. Mrs, Pat Nixon made a visit to our hospital in July 1969. The hospital was "sanitized" and she did not see the "real" side of the war. The patients she was allowed to see were given clean, pressed pajamas. The nurses put on white dresses and wore caps. Only certain wards were open to Mrs. Nixon. Soldiers with casts had the cast "freshened up" with clean, white plaster. I am sure she left with the attitude of "this isn't so bad." I wanted to grab her and take her into the operating rooms and the intensive care units to show her the "real war." During her short visit there were secret service agents with rifles on top of all the hospital wards. I was allowed to follow along with the crowd while she made her "rounds."
25. A contractor was sharpening a tool on a grinder. The high centrifugal force caused the round grinding wheel to break into pieces. A pie shaped piece with a sharp end and a round edge (about four inches) lodged in his head! The round part of the piece was level with his forehead and nose. The sharp end of the piece was about three inches inside his skull. He was awake upon arrival at the hospital. I put him to sleep and the surgeons made preparations to remove the piece of grindstone. No attempt was made to touch the piece in his head prior to being ready to operate as the piece might be providing pressure on bleeders underneath that could cause huge blood loss and complicate all attempts to save the patient. The piece was removed successfully. He survived the incident with the loss of the left eye and no apparent

mental change. He would require some plastic surgery on his face after his return to the United States.

26. During the early part of my time Vietnam the surgeons and I planned an Intensive Care Unit (ICU) concept for a military hospital in a war zone,. This was presented to those higher up and approved as a pilot study.. After a month it was obvious an ICU was valuable to patient care and for the rest of the war we had a neurosurgery and a general ICU in our hospital. This was a concept that had not been previously accepted in the military.
27. Our hospital cafeteria was excellent. Our cooks were a team of Asians and the cuisine was so good I had to avoid the cafeteria some days and eat off the food truck or purchase Vienna sausages and sardines to avoid putting on weight! The soldiers recovering on the wards had a great menu. When we worked all night (not uncommon) the cafeteria would send up large plates of sandwiches and milk to "tide: us over. The Christmas dinner party and Santa's visit for the orphans was held in the cafeteria.
28. We had a cooperative agreement with the Army hospital in Saigon: We sent our nurses who wanted an abortive D&C to them and they sent their nurses who wanted an abortive D&C to us. We asked for volunteers to administer the anesthetic and to preform the abortion. No one opposed to abortion was forced to help in any way.
29. Ordering supplies in a war zone got a bit ridiculous at times. I once ordered 12 spinal sets (constitutes 1 case). The ordered arrived a month later and there were 12 cases (144 spinal sets), enough to keep us supplied for two or three years! I set my one case aside and sent the rest to the Vietnamese Army hospital in Saigon.
30. A duce and one-half truck was sent empty to the main supply depot to pick up a load of blankets for the hospital. It left the depot full and did not stop on the way back to the hospital,

When it arrived the truck was empty. We assumed the blankets ended up on the black market in Saigon.

31. The black market in Saigon was a place you could get just about anything that was shipped into Vietnam. It was rumored that the dock workers in Saigon had an "understanding" that they could take 10% of the ships cargo for themselves. We once sent one of the supply sergeants to Saigon to find a special surgical instrument for the hospital. He found the instrument and reported that they were many blankets spread out on the sidewalk covered with a multitude of surgical instruments.
32. To transport patients from the hospital to Tan Son Nhut Air Force base in Saigon, we used either an ambulance or a helicopter. Some of the soldiers went to Clark Air Force Base Base in Manilla, some ended up at Tripler Army Hospital in Hawaii, and only a few went directly to the mainland.
33. Once a week the burn unit at the Brooke Army Medical Center, Fort Sam Houston, in San Antonio, Texas sent a plane to Vietnam to pick up burn patients for direct transportation back to their burn unit. The majority of burn patients were helicopter pilots. During my Residency training at Brooke, I rotated on the burn unit for 30 days and was well acquainted with the challenge of caring for burn patients.
34. After I was assigned a space in the Quonset hut, I was allowed to "remodel" it. I went to the supply office and obtained some wood from shipping containers, a saw, a hammer, some nails, and a measuring stick. I made a frame for my mattress, a couple of shelves, and a place to put my boots when I slept. I was able to obtain a heating rod to put in my closet to keep my clothes dry.
35. By the time I arrived in Vietnam, there was a ready supply of blood. When we needed fresh blood, we called Tan Son Nhut Air Force Base and have them send us a busload of soldiers just arriving for duty. We did not ask for blood donation from

any soldiers leaving Vietnam because they had been exposed to a number of diseases. Occasionally we had to resort to our "walking blood bank" (each of us were on the list) for blood donation. I learned just a few years ago that all the blood donated for the Vietnam war was from donors who worked or lived on military bases around the world.

36. The morgue preparing the bodies for shipment to the United States was located on Long Bien base. There was another one in the northern part of South Vietnam. This was not a good duty and I am sure those who provided this service did so with respect. A picture record was kept of the kinds of wounds the soldiers received and was logged and kept in Washington, D.C. in a military installation.
37. Occasionally a celebrity would visit Vietnam. On one occasion I happened to have a free moment and found out that Arthur Ashe, the famous tennis player, was giving a demonstration near our hospital. I made the time to go and watch him perform. A little lift in moral.
38. The Army built a temporary swimming pool near our hospital. It had a wooden frame with a thick plastic bottom and sides. The water was about three feet deep and warmed by the sun. I only used it once during my tour.
39. Our base had a number of enlisted and officer clubs. These provided live entertainment (usually singing groups or bands from somewhere in Asia) and excellent food. You could get a steak for \$5.00 and play the slot machines (which I did not do). I did not have the time to go very often, but when I did, I did not like it much because the music was very loud and you could not talk to one another.
40. We had a number of patients who needed inhalation therapy for their pulmonary injury. I was able to take three of the medical corpsmen who had some experience in the area and teach them some more of the principles of pulmonary therapy. We designed a pulmonary therapy unit for the hospital. The

corpsmen made daily rounds on the patients and the quality of care was improved.

41. One of our soldiers was admitted with a brain injury. When the neurosurgeon opened up the skull he immediately saw the patient needed a dural venous sinus repair. He told me most neurosurgeons see a case of this nature once or not at all in their entire career and the success of repair was not optimal. Together we devised a shunt from an endotracheal tube to bypass the area needing repair. Our neurosurgeon was able to make the repair in a bloodless field and then remove the shunt and return the dural sinus to normal blood flow. The patient made a full recovery. We wrote up the procedure and it was published in the Journal of Neurosurgery in 1971.
42. A neurosurgeon was assigned to our hospital who had been in a teaching hospital in the United States. He could not change the way he did neurosurgery and as a result he was very slow and left a large back load for the next neurosurgeon, We had two neurosurgeons who took call every 24hrs. The neurosurgeon in question had to drape like in a teaching hospital and did not know how to do "bread and butter" surgery. When he did a case at night, I had a signal for the surgical corpsman to alert me if the surgeon was slowing down the work. The corpsman was to knock on my door, say "banana," and return to the OR. I would get up and go to the OR to assist the anesthetist and try to hurry the case along. After two weeks it was obvious the neurosurgeon was not fitted for war zone surgery and he was sent to a very small hospital in Vietnam and eventually was sent to a Veterans hospital in the United States to finish out his tour of duty
43. When we were receiving a large number of casualties, it was necessary to triage them because of the limitation of ORs and medical/nursing staff. One surgeon was assigned to the receiving area and was responsible for triage and immediate

care in the receiving area if it became necessary. The triage usually followed this pattern: American soldiers first, Allied soldiers and Vietnamese soldiers next, Contractors next, Civilians next, and Prisoners of War last. This order was always altered if the patient was bleeding badly and needed immediate surgery. The neurosurgeons added an additional neurosurgical triage: If the patient was comatose and had no reflexes, an IV was started and the patient was put behind a screen in the receiving area. The nurse or neurosurgeon checked the vital signs every hour and if the patient showed signs of improvement, he or she was taken to the OR for brain surgery. It was rare for this kind of patient to live very long after the surgery.

44. Soldiers arrived in the receiving area with caked blood, mud and dirt on them. If there was time before they went to the OR, the nurses and corpsmen would remove their clothes and boots and clean them up. Sometimes this had to be done in the OR but we tried to avoid this. After any patient left the OR table, the area was mopped and made ready for the next patient. Our floors were concrete and the corpsmen wore the same boots as soldiers in the field. We just didn't have time to sterilize the OR like is done in any stateside hospital.
45. For Christmas our Chaplain arranged a very thoughtful event (At least for me). He arranged for buses to transport children from the local orphanages to our Cafeteria. Each staff member of the hospital, who could attend the event, was assigned one or two children. I sat between two lovely Vietnamese children while we ate together and then enjoyed a visit from Santa Claus. At the time I had four young children of my own in Utah and this event at Christmas time was a real moral lift for me.
46. The flow of casualties was: 1] brought in on a stretcher to receiving, 2] taken directly to surgery or sometimes to a small holding area, 3] transferred from the stretcher to the

operating table, 4] transferred from the operating table to a hospital bed and taken to the recovery room and then to the intensive care or hospital ward.

47. Sears and Roebuck had a warehouse that serviced the military in Vietnam. I was told it was located in San Francisco. I did not use it but many of the staff ordered curtains, pillows, robes, socks, bedding, etc., from the catalog and had it sent to the 24th Evacuation Hospital. It was great to have such a service available since the Army could not supply everything.
48. There was a Chinese food restaurant about 100 yards from the front door of the hospital. This was an occasional treat for all of us. It came to be known as the "Diarrhea Palace" by the time I arrived in Vietnam. If more than ten staff went together to eat, at least one of them would have diarrhea within the next 24 hours and occasionally one of them would have to be given antibiotics and intravenous fluids. Once I ordered bird nest soup and it came with the straw nest and bird feathers!
49. During the time I was in Vietnam I trained a Vietnamese physician the basics of anesthesia and also had the privilege of training an American physician the basics of anesthesia. The American physician, Will Wright, was on a firebase for six months and then was rotated to the 24th Evacuation for the remainder of his tour. He learned the basics of administering anesthesia very quickly and did quite a few cases under observation. This program was called "On the Job Training." When we both went back to the states we met up again. I went back to Brook Army Medical Center for a couple of years and then accepted a position to teach at a new anesthesia residency training program at the Tucson, Arizona medical center. Our first resident was Will Wright. I had the privilege to help teach him for two years and followed his career as a Board Certified Anesthesiologist. He later retired and ended up in Texas near his family.

50. One day I was asked to leave my office and meet with officers from the U.S. Army who had a Vietnamese officer and Sergeant with them. I was ordered to give the physician Vietnamese officer six weeks of instruction in the administration of anesthesia and his Sergeant was to act as our interpreter. I had no input into this "program." We found both of them a place to bunk down and that first night I sat down with the new physician and attempted to find out how much he knew about anesthesia. He had graduated medical school in Saigon and knew about blood pressure, heart rate and a few basics of anatomy and physiology but he did not have a clue about anesthesia principles. He had not heard of Nitrous Oxide, anesthesia machines, vaporizers, and a host of other instruments used in the administration of anesthesia. He had never intubated anyone. I had to sit with him and the Sergeant every night and teach him the basics. During the day I would assign him to watch one of the CRNAs. I soon learned that the Sergeant was learning the basics much faster than the physician. Eventually we got permission to let the physician, Sergeant, and myself give anesthesia in the POW hospital. We did a few cases together and I used the two men as translators. After about two weeks I let him sit in the anesthesia seat in the hospital while I hovered over him while he conducted anesthesia on a very low-risk surgical case. I did not let him do any difficult cases. When he left we had a small "graduation" ceremony. He could probably give anesthesia with the help of the Sergeant on simple straight forward surgical cases but I don't think he was safe for difficult trauma cases. Thus was a challenge I was not ready for but I changed my thought patterns and I think it worked out well, considering the circumstances. I did not get any follow up on what happened after he left the 24th Evacuation Hospital.

51. When I finished my tour of duty and was landing in San Francisco on my way home, I was instructed to change from my military uniform to civilian clothes. This was done to avoid harassment from American citizens who were anti-war extremists. At this time soldiers in uniform were being spit on, called "baby-killers", and even attacked. I was not proud of my fellow Americans. I went to Vietnam on orders and gave my best to those who needed my expertise. I did not delve into politics and I kept the oath I had taken upon graduation from medical school to treat all as equal when my skills as a physician were required.
52. There were many romances at the 24th. One stood out for me as I saw the beginning and heard of the ending. One of the surgeons fell in with one of the ward nurses. They decided to live together in his assigned room. He apparently told her he was going to divorce his wife and marry her as soon as the war was over. She started a hope chest in preparation for their marriage. When it came time for his R & R, he met his wife in Hawaii and on the day he left she was in his arms, sobbing. He gave her a big story of how he was sad to go and would be thinking only of her during the time with his wife. She looked like she believed in his lies. When he returned from R & R they remained happy until his tour of duty ended. When he left he apparently promised her he would marry her. She left about two months later and made a beeline to his home. The story that got back to us in Vietnam was that when she knocked on his door, he opened the door and told her he had no intention of marrying her and giving up his children for her. He told her she was just a "live-in" for his time in Vietnam and shut the door in her face. She was devastated. I got to know this nurse on the ward and she did not deserve this kind of treatment.
53. A male and female nurse "found" each other while working at the 24th and were married there. They were given "married"

quarters and everything went well. When they went back to the United States things started to change in their marriage and they were soon divorced. The circumstances of needing each other in such a situation as seeing trauma everyday and reaching out to each other had faded and now they had nothing to really hold onto. Sad but true.

54. One of our anesthetists got involved with a nurse in Vietnam. He was married at the time and had a tremendous amount of guilt about the affair. When she went home he was left broken in heart and worried about what was going to happen to his marriage when he returned home because he felt he had to tell his wife about the affair. The end result was divorce and sadness of both the husband and wife. Many other affairs were undertaken and I assume no one spoke of the end results upon separation and return home.
55. After each case and when all the casualties were done with surgery, the OR floor was mopped and dried. The blood and wash water went down the drain. All the OR tables were cleaned and every thing was cleaned as thoroughly as possible. Some cases had so much blood loss on the floor that we sometimes had to pause and get the floor mopped. A lot of work done well by the corpsmen.
56. Everyone in my hooch contributed to the mamma-san fund. They did our laundry and cleaned our rooms. They did a great job and made life easier for us. They had a lunch everyday and it could be smelled a long ways from the hooch if they used a special sauce called nuoc mam. I was told how to make it: You find a 50 gallon barrel and fill it 3/4's full of fish. You let it sit for about six months until the fish rots and the bones, skin, etc., sink to the bottom. Then the remaining liquid on top is scooped up and put into bottles and used as a sauce for many dishes. It smells so bad that I did not try it on anything.

57. It was very hot and humid in our area of Vietnam. I arrived late to the war and found the OR's and wards to be air conditioned. My room was air conditioned. This was a blessing to both the staff and the patients. Prior to air conditioning in the OR, the patients had to be given extra fluids during surgery and it was miserable for them to recover in the heat and humidity on the wards.
58. There was one fat Sergeant who was assigned to the hospital. He appeared to weigh over 300 pounds and I always prayed I would never have to administer an anesthetic to him because of many complications, both surgical and anesthesia, associated with morbid obesity. He was in-country because the supply of soldiers was critical. Under normal peace time the Sergeant would have been discharged. Well, he developed appendicitis and I was faced with the dilemma of how to ventilate him during and after the surgery. He was not a candidate for a spinal anesthetic so I was faced with a general anesthetic. The surgical portion of his therapy was not difficult but it was his post-operative care I was concerned with. Just a few weeks before his surgery we were given a monster of an Engstrom Respirator Model 150 invented by a Swedish physician and engineer and manufactured in Europe. This was a volume-limited ventilator and just the thing for this patient's post-operative care. The only problem was I had never seen one of these ventilators and the instructions for use were missing! I played with the ventilator every night for about a week and finally discovered how it worked. The ventilators we used in the OR's were pressure-limited and would never have been able to keep up with a 300 pound man. I used the ventilator during the surgery and in the intensive care unit. It took me about two days to wean the Sergeant from the ventilator but it was successful and he made a good recovery. I was relieved.

59. One of the saddest events I witnessed was the arrival of the parents of one of our critically ill soldiers who was comatose and on a ventilator in the neurosurgery intensive care ward and not expected to live. Somehow the parents had obtained permission to visit their son in Vietnam. It was not a sight I would want any patients to see. The surrounding would have been devastating to anyone, especially seeing their son in such an environment. I do not recall how long they were allowed to stay but in my opinion they should not have been allowed to visit. We did not have the facilities for all the parents of wounded soldiers to visit the hospital. We had a rapid turnover and trying to cater to a large number of grieving parents would interfere with our work.
60. I did not take photos of wounded soldiers. It was hard enough on me to see them day and night and I didn't want my family or others to witness the carnage. The only physicians I felt had a good reason to take photos of the wounds of soldiers were the plastic surgeon's who needed pre-op and post-op pictures to submit for their plastic surgery boards. Taking pictures was uncommon and usually were done on the recovery wards by the Red Cross volunteers to send to the soldiers family. These photos were limited to faces and not wounds.
61. For one party the surgeons arranged for a band to come. They arrived in the back of one of our ambulances!
62. Supply of medical equipment usually fell into two categories: critical and non-critical. To order a piece of critical equipment you had to have the general in charge of the entire medical team in Vietnam to approve the order and sign it. Then the order was telephoned directly to the company selling the piece of equipment. It was then put on an airplane and was shipped to San Francisco where it was put on another airplane on it's way to Vietnam. We would get the instrument usually within 24hrs of the order. Our hospital did not abuse the

system. The non-critical orders were sent through the usual channels and took two to three months to arrive.

Occasionally we sent someone to Saigon to see if the instrument we needed was on a blanket in the black market.

63. Attached to our hospital was a Quonset hut housing two physicians assigned to the Walter Reed Institute of Research. They conducted a few research protocols and provided us with blood gas support when needed. We tried not to misuse the teams efforts, but on occasion a patient in the OR or in an ICU might need a blood gas. We did not do blood gases on patients on ventilators every day. I did one or two studies with the team and published a couple of scientific papers as a coauthor with them.
64. When you arrived in Vietnam you were supposed to exchange your dollars with Military Script. This was done to limit the number of dollars leaving the country via the Vietcong. When you left you could exchange your script back to dollars.
65. When we visited the Vietnamese Military Hospital in Saigon, I met the Chief of Anesthesia. He was trained in France prior to the war and seemed capable of running the department. The majority of anesthesia personnel in the department were nurses he had trained.
66. Postal service was excellent during my stay in Vietnam. We could write a letter and write "Free" on the top right hand corner of the envelope and it would be sent without charge. I wrote home almost every day and Zoe Leone wrote to me almost every day. Sometimes there might be a glitch in the mail service and you would get five or six letters in one day. I did not try to send any packages except those I bought in the Japan PX. We were also allowed one trunk to be sent home when we finished out tour of duty. I remember the trunk I sent arrived about two or three weeks after my return stateside.

67. When you left Vietnam to board the airplane, there was a large box with a hole in the top next to the outside door. This was the amnesty box. If you could deposit anything (I.e. illicit drugs, enemy weapons, etc., in the box and there were no questions asked. However, if you boarded an airplane with illicit goods in your possession you could be in trouble.
68. The Army did not supply pediatric anesthesia equipment in a war zone. However, we did volunteer cases on children from the orphanages in our area and we needed pediatric equipment. By the time I arrived in Vietnam there were two large cabinets full of pediatric equipment. I added my pieces of equipment to those others brought from their various hospitals. We quickly had a better array of pediatric equipment than most hospital in the United States! It seemed everyone had thought of the need for pediatric equipment in Vietnam and the equipment supply soon was past ample!
69. The practice of warming blood was critical to the success of surgery in those patients receiving large amounts of blood. We did not have blood warmers. A large pan was filled with warm water and the blood bags were dumped into the water, When the water turned cold, warm water was added. It was very important to test the temperature of the water with your elbow to make sure it was not too hot for the blood bag. Hot water could rapidly lyse the red blood cells and make the blood useless. The medical corpsmen were usually careful about the temperature of the blood but sometimes someone new would be helping and they did not know about the blood being lysed if the water was too hot. Once, a company brought specially designed microwaves to warm the blood to a set temperature. These worked well if the volume in the blood bag was a certain amount. However, if the volume was below a critical amount the red cells would lyse and if the volume was above a critical amount the blood would still be

cold. These microwaves were tested for about a week and then taken back to the states.

70. The Army hospital in Saigon was totally different from our hospital. They did not take in many trauma cases. They were a "model" hospital. A school house had been remodeled and made into a hospital like we had stateside. Operations were scheduled on the board in the operating room. The surgeons did a number of breast implants, plastic surgery on the eyes of oriental women to get rid of the squint, and a host of operations on political figures. The army personnel had to wear the same uniforms they would have worn in a stateside hospital. Everything was clean and first class. I visited the hospital a couple of times and was very happy to get back to the 24th Evacuation Hospital to take care of our casualties.
71. Our hospital was square with a large open in the center. Lawn had been planted in the square and patients recovering from surgery or medical diseases liked to come out and sit in the evenings. I was told most of them were smoking marijuana, but I went by there a couple of times and couldn't smell marijuana smoke. I guess I just did not know what marijuana smoke smelled like.
72. In the headquarters of the Army on Long Bien post was a substantial building with carpeted halls, offices for the generals, and a large auditorium for presentations. The building was air conditioned. The members of the Church of Jesus Christ of Latter Day Saints had arranged to use the auditorium for their 2 hour Sunday Services. Since I was a member of the church I tried to attend the services whenever I could get free. The members were all men at the time and so we held a Sacrament meeting and a Priesthood meeting. It was good to be together.
73. There was a small PX on the base. It was not air conditioned and did not have much to choose from. If you were there when items were being put on the shelves and you wanted

one of the items, you better buy it then or else it would be gone the next day. They always had a supply of essentials like toothpaste, soda, Vienna sausage, sardines, soap, and other small items, but radios, tape players, and speakers were sold out on the day they arrived.

74. One day I was taken by the Sergeant in charge of the motor pool to the junk yard for vehicles, helicopters, and other war equipment. There were one or two mounds of war junk piled up at least 50ft awaiting the arrival of vehicles to pick the waste up, transport it to the shipyard, and then sent to Japan. The Japanese were buying it at a few cents on the dollar.
75. The motor pool Sergeant told me at the beginning of the war it was very difficult to get parts for jeeps and trucks. So the motor pool would have a caterpillar dig a large hole, put the jeep or truck needing a part in the hole, cover it up, and then send in an order for a new jeep or truck. The buried vehicle was listed as "lost in action" and the order for replacement was filled quickly. This was the only way they could keep the required number of jeeps and trucks in stock. I had no way to verify this story but it sounded good.
76. I was able to attend a religious retreat in Saigon. The Chaplains arranged for all members of the Church of Jesus Christ of Latter Day Saints to meet in a very nice Air Force Chapel on Tan San Uhut Air Force Base for an all day meeting. One of the twelve apostles was touring Vietnam and he had requested the meeting through the Chaplain corp. Our group was transported from Long Bien by buss . The chapel was full and the all day meetings were inspirational.
77. Near the PX the Army had installed at least 20 long distance telephones for the troops. You had to stand in long lines and were restricted in how long you could talk. I tried it once and gave up because I needed to get back to the hospital. The lines were just too long for me.

78. I was told all Vietnamese physicians were drafted in the military for a period of 30 years. They could open a private clinic for a few hours each day and on weekends. I had no way to verify this information.
79. Our hooch had a small space in the back that had a 50 gallon drum cut in half and made into a very effective barbecue. We got the coals and lighter fluid from supply and had a lot of barbecues. When a high ranking officer contracted a sexual transmitted disease he would come to our hospital to be seen by the medical staff. Most of them did not want the treatment for this disease to be documented in their medical record. As a result the officers, as a show of gratitude, would send a huge plate of shrimp or steaks or both, to our hooch. We had so much fresh shrimp and steak that we got tired of it.
80. One thing I really miss about the 24th Hospital was the bond created between the doctors and nurses. We worked together as a team and the spirit of getting the job done and doing it well prevailed over attitudes like: who is best, I am a greater surgeon than you, I am a doctor and you are merely a nurse. As soon as I entered private practice in the states I had to put up with these kinds of attitude and it made my life a little less rewarding.
81. When I was diagnosed with PTSD, I looked back on my experience in Vietnam. I came to realize the constant exposure to carnage, almost every day and many nights, without rest, was the major factor in my plight. I saw and did cases I would never see again except on rare occasions. These kinds of experiences were for me of the same magnitude as those soldiers in the jungle facing the enemy day in and day out. Why I couldn't cope properly and not develop PTSD I will never know.
82. Our hospital compound had a couple of showers and latrine buildings. We were fortunate in having a large tank on top of

our building containing warm water. We were able to have a hot shower after a long work day or night and this was one of our real luxuries.

83. By the time I arrived in Vietnam the 24th Hospital was having fresh fruit and vegetables flown in regularly from the farms in Thailand. We had fresh fish and other items on a regular basis.
84. I went to Saigon to observe the methodology of the Vietnamese trauma team. After the visit a group of us went downtown to a fancy restaurant on a boat alongside the river. The next day we were told the restaurant had been blown up by the Vietcong. We missed death or injury by only a few hours.
85. The original anesthesia machines in the 24th Evacuation Hospital did not have the correct vaporizers for the newest anesthetic, i.e. halothane. We were able to obtain vaporizers for halothane and jerry rigged them into the breathing system of the anesthesia machines. This made the administration of anesthesia much safer and easier.
86. Years after I returned home from Vietnam, I discovered I had PTSD. Part of my therapy was to write down my experiences in Vietnam. These writings eventually created the first version of the book: Vietnam Doc. I had 50 copies of the first version printed to give to my family and friends. Later I rewrote sections for publication and paid Life Publishing, a subsidiary of Readers Digest, to print the book; The publishing company sent flyers out to various bookstores and put an advertisement on Amazon. I think I got a \$40 royalty from the book the first or second year it was on Amazon.
87. The surgeons tried a water pic system to debride wounds faster and cleaner but it worked on some and not others. I do know it made a mess on the floor and created a lot of extra work for those who cleaned up after the surgery ended.

88. Years after my book, Vietnam Doc, was published I ran onto a young man who was going to Saigon for business. I asked him if he would take one of my books with him and take it to the medical library of the Vietnam medical school. When he returned, he said they were very happy to receive a copy.
89. When I was in Vietnam I devised a way to switch rapidly between listening to the blood pressure and heartbeat. This was done through the use of a device called the Ploss valve. I used this system for a few years when I returned stateside but it was replaced during the electronic age.