

Establishing Best Practices for Pharmacists on Short Term Mission Trips

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Adequate access to quality health care was a major campaign issue in the last U.S. presidential election, and remains a concern of many citizens in America. It is an even greater problem in many parts of the world. Recently there have been improvements in the availability of healthcare services across the globe, especially in the area of maternal and child health. However, access to skilled care during pregnancy, childbirth, and the postpartum period is still inadequate in some areas. The latest estimates suggest that 80% of pregnant women received antenatal care at least once during their pregnancy from the period 2000–2010. Only 53% of women and children received the World Health Organization (WHO) recommended minimum of four antenatal visits.^[1]

The lack of adequate health care access should be a concern of each of us, and prompt us to action. Jesus is our example; Matt. 9:35-38 (NIV) “*And Jesus went throughout all the cities and villages, teaching in their synagogues and proclaiming the gospel of the kingdom and healing every disease and every affliction. When he saw the crowds, he had compassion for them, because they were harassed and helpless, like sheep without a shepherd. Then he said to his disciples, ‘The harvest is plentiful, but the laborers are few; therefore pray earnestly to the Lord of the harvest to send out laborers into his harvest.’*” (The action words have been emphasized and are not in the original text). If the church and individual Christians are to follow Jesus’ examples in the mission of making disciples of every nation, we must be compassionate in serving the needs of people. Not only do we need to be extending care to the hurting in this world, but we also need to be praying that more people become involved in following Christ’s example.

It is amazing to see the way pharmacists are getting involved in this process. Fifteen years ago Christian Pharmacists Fellowship International agreed to partner with the Christian Medical and Dental Associations, Nurses Christian Fellowship, and the Fellowship of Christian Physician Assistants in an organization called Global Health Outreach (GHO). This organization sends 40 to 50 short term medical teams (1 to 2 weeks in duration) every year to dozens of countries. In the first year of GHO, there were 4 pharmacists that joined the teams. More recently, 60-80 pharmacists or students have joined GHO teams annually. In addition, pharmacists have become involved in other, similar organizations and efforts. God has been faithful in honoring the prayers of His people by raising up laborers for the harvest! We trust that He will continue to move to action additional teams to help reach the enormous unmet medical needs in the world.

The obedient pharmacists and pharmacy students, who have joined teams, often work in settings where the available resources are inadequate and mismatched with the extensive healthcare needs. More often than not there is a language barrier where communication directly with patients and caregivers is nearly impossible. Additionally, there are many local customs, cultural barriers and health beliefs that directly affect how the patient views their health and prove to be obstacles to care. It is tough to know just what to do when faced with the dilemma of how to best meet the needs of the suffering with the limited understanding and resources available.

For a short term medical team the core issues are maintenance of patient safety, provision of the greatest service benefit, and clearly communicating the love of God

through the example of team members' lives. This article attempts to describe best practices for pharmacist on a medical team, while balancing limited resources and abilities. Five important steps in the pre-trip planning process and three local preparations that must be accomplished before the work can begin are reviewed. Best practices for the prescription dispensing process and three common sense attitudes to enable the team to have its greatest impact on the people being served are identified.

Pre-Trip Preparation

Gregory and Candi Seager after years of doing short term missions began to assess their work and evaluate whether or not they could improve what they were doing. They developed 16 thought-provoking questions and placed them in a booklet, *Operating Responsible Short-Term Healthcare Missions*.^[2] It is their desire to have short-term team participants prayerfully think through these issues before heading to the field. Some of these questions will be reviewed as five areas of pre-trip preparation are presented.

Partnership

The first question that the Seager's asked is whose needs are you serving? If your goal is primarily to provide an opportunity for health professionals to experience an underserved environment, then you will miss what we are called to do. The passage in Matthew reminds us that as we go, we are to teach and proclaim the Gospel. We are to make disciples in addition to healing. To be successful from this perspective, we cannot work alone. Chances are we do not have the language abilities or the cultural insight to have the impact we desire. Therefore, it is important that we establish a partnership relationship with both a local ministry group and a local

medical group before leaving on the trip. Our willingness to teach, proclaim, and heal will assist the local ministry in multiplying its influence in the community and providing faithful laborers to carry on evangelism and discipleship long after we leave. When it comes to medical care, the simple, temporary care we provide can be greatly extended if we train and encourage national health-care workers to be more effective in the care they provide. Many illnesses we see may require long-term follow-up and treatment. There needs to be a way to feed patients and care givers into a system for long-term medical management. A letter of invitation from this local ministry and the local medical group is very valuable in complying with the laws and regulations of the country where the team serves.

Regulations

Peter emphasized to the early church that respect for governmental authority is important to effectively reach those not following Christ. In I Peter 2:13-15 he says "*Be subject for the Lord's sake to every human institution, whether it be to the emperor as supreme, or to governors as sent by him to punish those who do evil and to praise those who do good. For this is the will of God, that by doing good you should put to silence the ignorance of foolish people.*" Maintaining the separation of your mission outreach from government is often important. However, working with and cooperating with government is imperative. Passports identify you as an individual and where you come from, but they did not give you permission to enter another country. A visa gives you permission to enter and to exit a country that is not your own. Many countries stamp that visa in your passport when you arrive, but there are still many that require you to apply for that visa and sometimes

undergo various security checks before they will grant that permission to enter their country. In some cases, team members will be required to get a special work visa that enables members to temporarily provide health care in the country. It is essential for each member to know the regulations of the country where the team will serve and obtain the appropriate visa in a proper and timely manner. Partnership with a local ministry and local medical group can make it much easier to understand visa requirements and obtain necessary documents and approvals for visa applications. Each country may also have regulations on required vaccinations before you can enter or what vaccinations are required before you can return to your home country. The Center for Disease Control is a valuable resource in identifying this information (<http://wwwnc.cdc.gov/travel/>) and learning about other health travel advisories for your destination country.

Another question the Seager's asked is, "Are you aware of the credentialing process in the country you are serving? Does each physician and nurse (and pharmacist) in your group have governmental authorization to work in the receiving country?" Some local health authorities require each clinic to register and obtain a permit before it can provide care. Many countries require each professional to register with their corresponding licensing authority. Failure to abide by the appropriate regulations can prevent the clinic from providing care. On one occasion in Zambia an individual came by the guest house where our medical team was staying to make arrangements for 32 physicians to spend the night before returning to their home country. The team had only been there 2 days, but they failed to register with the Zambian Medical Council. The result was the physicians were not allowed to

provide any medical care. The most reliable resource on country regulations is to contact the Ministry of Health in the country to be visited. Often the registration of professionals is a simple process that can be handled by the local partnering groups once the requirements are known.

Logistical Arrangements

Most of us allocate about a third of our day resting, to prepare for the day ahead. Generally we set aside 3 times a day to nourish our bodies and spend a portion of our day traveling to and from our work or study place. A medical team in a developing country is no different. However, the logistics of providing for the team's needs are exponentially greater. It is not easy to find a place for a team of 30 to stay. For example, do the accommodations facilitate team building while being located close to the area where the healthcare services are provided? Often the greatest risk team members face during their time away from home is local transportation. Care must be taken to arrange for dependable and safe transportation. Again, local partners are valuable resources in arranging accommodations, meals and local transportation. Team logistics should be coordinated by the team leader to assist with group travel discounts and to minimize the effort of host partners.

Culture and Customs

Values, traditions, cultural norms, a person's self-view, and health beliefs are all important in a person's worldview. This is the lens we all use to make spiritual decisions and choices about health and well-being. Efforts of team members to discover the history and cultural beliefs of the country to be visited are extremely helpful in meeting the needs of people. For example, if you discover most

young women must work for hours each day in the field, this information will be helpful in understanding the challenge of promoting breast feeding for the first two years of life. A wealth of resources are available to learn about the country you will be serving. The CIA World Factbook (<https://www.cia.gov/library/publications/the-world-factbook/index.html>) is a good source to identify the language, culture, and details of the underserved area that will be visited. The Ethnomed website (<http://ethnomed.org/>) is another resource that integrates cultural considerations into clinical medical practice.

Pharmacy Planning

Best practices for pharmacy planning:

- ❑ Medications are often purchased at very low cost in many countries. Make sure that purchases are from a reputable pharmacist or registered pharmaceutical distributor.
- ❑ A detailed inventory of pharmaceuticals, including expiration dates, and other medical supplies should be kept by the team at all times. This facilitates customs procedures and can avoid lengthy health inspections.
- ❑ No expired medications or medications with shorter dating than allowed by the country should be used or brought into the country.
- ❑ No unlabeled medications, for example sample medications removed from their original packaging, should be used.
- ❑ No sample medications should be used unless a complete dosing regimen can be given. If needed on an ongoing basis, medications must be available locally at an affordable price.
- ❑ A formulary should be developed to address the primary health needs of the population of in-

terest. The formulary should be based on the principles of the WHO essential drug list.

^[3] *This list recommends medications based on disease prevalence, evidence of efficacy and safety, and comparative effectiveness. In summary, the medication inventory should only include medications that are available locally, affordable, and focused on the basic needs of the people.*

Develop the Formulary

The same resources useful in learning the history and culture of the destination country are often helpful in identifying the common medical conditions encountered in the country of interest. The 3 biggest world health problems are HIV/AIDS, maternal mortality, and infant/pediatric mortality. A health development approach coupled with health education is essential to address these key issues. The reality of providing patient focused pharmacy care is that some medication assist with the short term complications associated with these conditions. However, it is not possible to bring even some of all 9,000 medications approved in the United States. Therefore a limited formulary of medications must be developed. As mentioned, the WHO guiding principles should be used to help develop the team formulary. When possible, it is desirable to select at least two drugs from each drug classification. Ideally a formulary from a previous trip to that region is a good starting place. In the absence of guidance from previous teams, a sample formulary is on the CPFI Website short term mission page (<http://www.cphi.org/short-term-missions>). It can be downloaded and modified to meet the needs of any team.

Estimate Quantities to Order

Once the formulary is developed and

approved by the team leader and the partnering medical group, it is necessary to estimate the quantity of medication to be ordered. Information from previous trips to that area, or similar areas, is valuable in planning the medication inventory. In the absence of any previous information it is possible to predict the number of patients that will be seen. Each potential prescriber should typically see no more than 40 patients per day. Higher rates mean less ministry. Because knowing Jesus is the long-term answer to people's needs, ministry should never be neglected. On the average, the number of prescriptions each patient receives should not exceed 2-3, in addition to vitamins and antiparasitics. Exceeding this limit increases errors that could harm a patient.

Place the Medication Order

A carefully developed formulary and adequate inventory estimate allows the medications to be obtained. Best practices indicate that these medications should be ordered in-country. Utilizing host partners identifies a source in the country for purchasing the medications you require. This provides economic benefit for the host country, helps insure the medications are available locally, and avoids the need to obtain import or customs approval for supplies being brought into the country. With increased weight limitations for baggage on international flights, purchasing drugs and supplies in-country is also helpful to the team. Some items on the formulary cannot be obtained locally, or at a reasonable price. In these cases, specific medications or supplies should be brought with the team. Be sure to identify in advance what customs regulations may apply, realizing most countries have restrictions on acceptable expiration dates. Identification and adherence to all relevant local laws and regulations are

important. Many countries are now sending health inspectors to inspect all supplies that teams are bringing in to the country. These inspectors are very quick to confiscate anything short-dated, expired, or improperly packaged.

Print Dispensing Labels

The next step is to print and bring preprinted dispensing labels. If the formulary has been identified with appropriate quantities and the standard dispensing quantity is pre-determined, then it is possible to know the number of dispensing labels for each medication. This facilitates prepackaging that will be done on the field. The International Federation of Pharmacy (FIP) has developed minimum guidelines for the labeling of medications for patients (http://www.cphi.org/assets/docs/Manuals/fip_labeling.pdf). Labels must include the name of the medication, strength, and warnings if necessary. They must also include the patient's name, the dosage instructions, and indication or intended use. The United States Pharmacopeia has developed pictures that can assist patients who are either illiterate or do not speak the language of the healthcare provider. These symbols along with English or Spanish text have been incorporated in sample labels designed to assist the pharmacist in properly educating the patient on safe use of the medication. Sample labels in document templates with various label formats (10 per page, 15 per page or 30 per page) can be downloaded from the CPFI Website (<http://www.cphi.org/short-term-missions>).

Identify and Obtain Information Resources

The last pharmacy pre-trip preparation is to identify resources to ensure medications are used wisely. Many team physicians will be practicing

outside of their comfort zone and will be using a formulary of unfamiliar medications. There will be frequent consults such as, "What can I use to treat this condition," or "What is the best way to dose this medication," or "What is the pediatric dose?" Participants on GHO trips are given *The Handbook of Medicine in Developing Countries*^[4] as a starting point, but other references may be very helpful. Pocket resources that can be helpful in providing basic information include *Tarascon's Pocket Pharmacopeia*^[5] and *Sanford's Guide to Antimicrobial Therapy*^[6]. Electronic resources on handheld devices (e.g., Lexi-Comp, Epocrates, Clinical Pharmacology, Mobile MicroMedex) are valuable resources that are easily accessible. It is important to have at least one resource that has basic drug monographs to be used in making therapeutic interchange or dosing recommendations.

Site Preparation

Upon arrival in the country and before the clinic work begins, there are 3 things to be done. If this is the first time for a clinic in the area, the team leader and local partners should visit each clinic site to plan for an efficient work flow through the clinic. If the team is providing primary care, it is good to have a controlled entry point to register patients and then have them proceed to a triage area where histories and vital signs can be obtained. There needs to be work areas for each physician, physician assistant, dentist, and nurse practitioner who will see patients. Ideally there should be a location for private exams, if necessary. An area for minor procedures should also be arranged. Lastly, there needs to be a somewhat enclosed pharmacy with adequate waiting space. If reading glasses are provided to patients, there should be a station for providing this service.

Medication Preparation

The pharmacist should ensure the formulary has been purchased and is ready to go. Time should be taken to unpack, sort and, if possible prepackage the medications you know will be fast moving. To process 400 to 500 prescriptions a day, about 80% of the medication needs to be prepackaged. If this is done, all that is required is to add the patient's name and individualize the patient instructions. Prepacking can be done by any teammate, medical professional or not, but must be carefully supervised and checked by the pharmacist. This can be an excellent team building exercise. The prepackaged vials or ziplock bags must all be labeled with the preprinted labels and each repackaged medication placed in large gallon ziplocks to keep medications separate. It is helpful to store the bulk and repackaged medications from the same formulary class in the same trunk, box, or suitcase that will be used to transport the medications to the clinic site. On completion, make sure all medications are securely stored in a locked area until transported to the clinic.

Volunteer Preparation

Lastly, the team leader needs to ensure that local partners have identified sufficient translators for each of the vital areas in the clinic. If local church volunteers will be assisting with the evangelism and discipleship, then it is beneficial to have training time with them.

Prescription Processing

Best practices for prescription processing:

- ❑ Medications should be prescribed only when absolutely necessary. It is not acceptable to treat minor self-limiting symptoms just to give the patient a prescription for coming to the clinic.

- ❑ Know and adhere to the country's pharmaceutical dispensing laws.
- ❑ Medications should be dispensed in child safe containers, not paper envelopes or ziplock bags.
- ❑ Medications must be properly labeled, using at least the minimum FIP guidelines.
- ❑ A local or team pharmacist should oversee the prepackaging, labeling, and dispensing of all medications.
- ❑ If there is no pharmacist, then medications should only be dispensed in the exam room by the prescriber, who should be careful to educate the patient about the medication.
- ❑ Patients or caregivers must be counseled about each prescription. Instruction should include the name of the medication, how it should be taken, and for the indication for the medication. Language and cultural difficulties result in about 50% of patients taking medications incorrectly. Therefore, utilize a translator, the prescription label with words and with pictures, and make sure the patient's name is clearly identified on the label.
- ❑ All medications and supplies should be carefully secured throughout the trip.
- ❑ Surplus medications should never be left with unqualified or unlicensed personnel.

Medication Selection

One advantage of primary care clinics in developing areas is that generally the team operates in very close quarters. Practitioners using unfamiliar medications creates an opportunity for frequent consultations between the pharmacy staff and prescriber. Access to references that provide basic information facilitates the proper use of the medications. Any therapeutic substitutions or altered doses should

be clearly documented on the dispensing record following the consultation.

Work Flow

The pharmacist must develop a strategy to maintain orderly patient flow through the pharmacy area. Anxious patients desiring to receive their medication so they can begin their long journey home have a tendency to crowd the dispensing area. If steps are not taken to control traffic flow and limit the number of patients in the dispensing and counseling area, the pharmacy can become confusing and frustrating for patients, caregivers and pharmacy staff. Local ministry volunteers are helpful in controlling the pharmacy waiting area. While patients wait for prescriptions to be processed, effective ministry and health education can occur in the waiting area. Each pharmacist and pharmacy student should be prepared to give simple public health teaching. A good source for materials that can be developed into teaching presentations is the Health Education Program for Developing Countries: The Most Important Knowledge website (www.hepfdc.info). Make sure that medications are carefully secured at the end of each day.

Prescription Filling

Best practices dictate that the medications be dispensed in child proof containers. It is not always possible to obtain these dispensing vials. When this is the case, moisture resistant, light resistant ziplock bags are the next best alternative. The medication must be properly labeled clearly indicating the patient's name using the FIP standards mentioned above. If a mother or grandmother are given multiple medications for several patients the translator must insure that the caregiver can clearly identify the name or markings for each patient. This helps prevent the caregiver from

giving the patient the wrong medication. The pharmacist should properly document the medication dispensed, the quantity provided, the dispenser's initials or signature and ideally record the brand and lot number of medication dispensed. Some countries are strict on what should be documented and how records are stored.

Patient Education

WHO statistics indicate that about 50% of patients in the developing world do not take their medications correctly.^[1] Language barriers contribute to this problem. Health and cultural beliefs also influence how a person interprets medication instructions. When no verbal instructions are provided, at least in a language the patient understands, it is very likely the patient will not take the prescription properly. Therefore, it is essential to utilize translators to insure proper patient counseling. Train the translators on the importance of the caregiver knowing which medication is for which patient, why the medication is prescribed, and how the patient should take the medication. Through your translator, encourage the patient to be adherent with instructions and complete the course of therapy. Be sure to greet each patient with a smile and extend a warm hand shake or greeting as they leave. If possible, offer to pray with patients and always communicate a loving and serving attitude.

Maintain the Proper Attitudes

Volunteers that serve on a short-term mission should be committed to love God, love others, and serve the world. First and foremost each team member should adopt the attitude that he/she is there to serve, and not be served. Paul writes to the Colossians, "Whatever you do, work at it with all your heart, as working for the Lord, not for men, since you know that you will receive an inheritance from the Lord as

a reward. It is the Lord Christ you are serving." Col. 3:23-24 (NIV)

Effective teamwork requires each member to work hard and look for opportunities to serve. Additionally, they need to happily conform to standards of conduct set forth by the team leader to protect the testimony of their ministry.

A teachable attitude among team members is also important. Most short-term members do not know the culture, costs, government regulations, and other constraints under which the ministry operates. Individuals on the team are generally not instruments of change, but must observe and learn from their hosts and then maybe they can leave foot prints for others to follow. Paul writes to the church in Ephesus, "For we are God's workmanship, created in Christ Jesus to do good works, which God prepared in advance for us to do." Eph. 2:10 (NIV) We need to realize that God has prepared us for this work and that we are there to discover what He wants to do. We need to accept that we will not have familiar medicines and the equipment. Our philosophy of American medicine will likely not apply, so we must allow God to do His work through us. God can accomplish great things through patience, faith, and prayers.

Not only are we called to serve one another and be teachable, but Paul reminds the Thessalonians, "Therefore encourage one another and build each other up, just as in fact you are doing." I Thess 5:11. Each team member must be ready to contribute to the team, but never criticize or make demands of fellow teammates. The team is to function as one body. It is also important that we take time each day to encourage and build up the national and missionary staff that we have been called to serve with. Lastly we must wear a smile and be ready to extend a hand of warm greeting to each

of the patients we have the privilege to love and treat. These attitudes will allow us to complete the ministry God has called us to provide.

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