

# Jordan ISC

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## **OVERVIEW**

Welcome to the Jordan ISC! This month you will experience the fast-paced city life in Amman. Get excited to interact with up to four million people who currently live within the city limits and learn everyday about the rich culture of the Jordanians!

Medical education in Jordan consists of a six year program after high school. The first three years consist of basic science while the last three years are clinically focused. Medicine in Jordan is practiced very similarly to the U.S. in terms of management as most providers follow American guidelines. However, stigma surrounding diseases, e.g. cancer, genetic syndromes, or infectious diseases, is much more prevalent. At baseline, patients have a higher level of anxiety regarding diseases and therapy and trust in physicians and the medical systems is harder to achieve.

Another difference from the U.S., depending on the sector of medicine in Jordan where you practice, is the availability of labs and imaging that are affordable and accurate. Within Jordan, there are three sectors of medicine: private, government, and military. Government hospitals

have less resources and long wait times for appointments, surgeries, etc., while private hospitals have similar resources and structure to Vanderbilt.

### **Medical Education in Jordan**

Students in Jordan take a standardized test their senior year in high school which helps to determine their career path. Medicine (along with engineering) is one of the most prestigious and competitive careers in Jordan and you must score very high on the standardized test in order to pursue this path. Once selected, medical education starts immediately after high school and is comprised of six years. The first three years are pre-clinical years and focused on learning basic science. The last three years are entirely clinical. During these three years, the students rotate through the main specialities including internal medicine, pediatrics, surgery, OB/GYN, psychiatry, and neurology. After six years of medical school, they start their internship year. This year is different from internship year in the US. In Jordan, internship year is still a general medicine year and the interns have yet to choose their specialty. Internship consists of rotating through three months of internal medicine, three months of surgery, two months of pediatrics, two months of OB/GYN, one month of emergency medicine, and one month of elective. Your responsibilities are increased during this year and your focus is more on management of patients. After internship, you apply for residency. You must take a written exam at every hospital you apply to. Depending on the specialty, residency training is between 3-5 years. After residency, almost everyone does a fellowship. There are very few general practitioners in Jordan, they are mostly subspecialists called consultants.

### **Rounding at JU**

As a Jordanian medical student, rounds are referred to as teaching rounds that consist of 10-30 students with one attending. The attending will often choose one or two interesting patients to be discussed on the following day. Medical students will then primarily research the pathophysiology and presentation based on the selected patients. A group discussion will then be conducted the following day at the bedside where multiple students will contribute. The format is somewhat similar to CBL at Vanderbilt but conducted with patients at the bedside.

As a Jordanian resident, rounds are referred to as management rounds and are very similar to rounds in the U.S. Residents will pre-round on every patient, collect updated vitals, labs, and imaging, and prepare to round with the attending on average around 9 am. Residents tend to arrive between 5 and 6 am to begin rounds on their patients with an average census of 25 patients per team. The team often consists of one attending or fellow, one senior resident, and one junior resident. One major difference in rounding compared to the U.S. is how separate the students are from the residents. Students have minimal daily interaction with residents in Jordan.

### **General Overview of Outpatient Clinics at JUH**

The clinics at JUH are extremely busy and it is common for one consultant to see over 30 patients in 3-4 hours. The patients do not have specific appointment times, they are seen on a first come, first serve basis. Each consultant has a handful of residents who see their patients first. Most patients are there for return visits. The residents take an interim history, do a focused physical exam, and come up with a plan. The consultant then enters the room and the resident presents the patient to the consultant. The consultant then performs a focused physical exam, counsels the patient, and answers any questions the patient has about the plan. In most cases, the consultant spends about five minutes with the patient. These visits are conducted entirely in Arabic and because the clinics are so busy, there is little time for translation or teaching. It is important to note that there are no general pediatric clinics at JUH, they are all subspecialized. However, the subspecialty clinics will see children for general check-ups and general medical concerns.

## **EXPERIENCES BY SERVICE AT JU HOSPITAL**

### **Outpatient Pediatric Neurology**

Contact: Dr. Amira Masri, Child Neurologist, email: masriamira69@hotmail.com

Overview: JUH has two child neurologists. Both of their clinics are extremely busy, for they get referrals from all over the Middle East. They commonly see children with epilepsy, headaches, and developmental delay.

Value: ++ understanding systems

### **Inpatient Pediatric Genetics**

Contact: Dr. Ali Hwande, pediatric geneticist

Overview: Genetic syndromes are prevalent in Jordan due to the high rates of consanguinity. On Monday mornings, Dr. Ali Hwande gives a lecture on genetics and then holds teaching rounds for the medical students.

Value: ++ clinical knowledge

### **NICU**

Overview: The NICU at JUH is well equipped and has many incubators, ventilators, and monitors for the babies. Phototherapy is also available. Medical students participate in teaching rounds in the NICU which consists of identifying patients with complex medical problems and having each student research one of the problems. The students then present what they researched on rounds.

Value: ++ clinical knowledge

### **Inpatient Pediatric ICU**

Contacts: Dr. Amirah Malkawi, Pediatric Intensivist

Overview: The PICU at JUH is comprised of eight beds including one private room, five main beds, and two hospice beds. Each month one attending, one senior resident, and one junior resident provide care for the patients in the PICU. Team rounds begin around 9:30am and occur once daily.

Value: ++ clinical knowledge, + opportunities to contribute, ++ understanding systems

### **Pediatric Interventional Cardiology**

Contact: Iyad Alammouri, email: [iyad72@hotmail.com](mailto:iyad72@hotmail.com)

Overview: The pediatric interventional cardiologist will serve both as a consultant and as a general pediatrician to manage patients within each specialty. Dr. Iyad trained at Yale in the U.S. and often has catheterization procedures each morning beginning around 9 am.

Value: + clinical knowledge, ++ understanding systems

### **Internal Medicine**

Contacts: Dr. Falasteen, Chief Resident, [filastana@yahoo.com](mailto:filastana@yahoo.com), +962 079 731 0219

Overview: Internal Medicine at JUH is very similar to the United States but does not have a general inpatient service like Morgan Service at Vanderbilt. Each team is based on specialty and includes Pulmonology, Nephrology, Cardiology, Infectious Diseases, Rheumatology, Gastroenterology, and Hematology-Oncology. Internal Medicine also includes a cardiac ICU and medicine ICU. Different from the U.S., medicine often has morning report the majority of days of the week beginning at 7:30 am. The team of residents on-call brings the paper charts of the patients admitted and one attending will lead a discussion and often pimp the entire lecture hall of residents. Another excellent learning opportunity includes what is referred to as the "Flea Market" in the same lecture hall on Floor -1 in JUH inpatient side. At the Flea Market, consultants and residents present and discuss interesting and difficult cases.

Value: ++ clinical knowledge, + opportunities to contribute

### **Medicine Pulmonology**

Contacts: Pulmonology 2nd Yr Fellow - Dr. Taha Alloz, [drTaha@facebook.com](https://www.facebook.com/drTaha),

Overview: JUH Pulmonology is a general inpatient service led by one fellow or attending and two residents (one senior and one junior). The average census of patients is 26 patients sprinkled throughout the floors and ICU's of JUH. They commonly see patients with COPD, sarcoidosis, pneumonia, OSA, and obesity hypoventilation syndrome.

Value: ++ clinical knowledge, + opportunities to contribute

### **Emergency Medicine**

Contacts: Ruba Chief Resident, [rubaalhamad@gmail.com](mailto:rubaalhamad@gmail.com)

Overview: Emergency Medicine is a very new field in Jordan and has only been around for a decade. Most EM physicians truly serve to manage triage and decide where patients go next. The ERs in Jordan (specifically JU, Arab Medical Center, and Al Bashir) are set up as a department separated into sections including: triage (run by EM), pediatrics, internal medicine, and surgery. If a patient arrives in cardiac arrest, there are designated rooms for resuscitation that have on average two beds with appropriate equipment for respiratory support and intubation. After a decision is made to send a patient to the internal medicine section (average of eight beds in the medicine section), the IM physicians will resume control of all care of this patient while the patient is still in the ED. The EM physicians will mainly oversee the overall department but focus their efforts on triage and the resuscitation room. Reductions of fractures or dislocations are typically done by Ortho physicians in a small room within the ED. Obstetrics often has a separate emergency department that is often in a different building depending on

the hospital. Until Emergency Medicine trains a greater number of physicians through their residency programs, it will be challenging for the EM physicians to manage the entire department and care for all the pediatric, medical, and surgical patients in each bed.

Value: ++ clinical knowledge, + opportunities to contribute, ++ understanding systems

### **EXPERIENCES AT ADDITIONAL SITES**

#### **Arab Medical Center**

Contact: Ahmad Jabr, Emergency Physician, former EM resident at JU, +962 798987945

Location: 5th Circle

This private hospital has 150 beds for adult and pediatric patients. The ED contains 10 adult beds, three pediatric beds, two resuscitation rooms, two procedure rooms, and one isolation room. Patients cared for at this hospital have private insurance and are typically of a middle or upper socioeconomic class.

Transportation to: Taxi

Value: ++ understanding systems

#### **Al Bashir Hospital**

Contact: arrange with medical students at JUH or through Dr. Abeer who knows Dr. Basima Marar Department Head of Pediatrics at al Bashir, 0777439594

Location: 5 minutes South of 1st Circle

This is the public, government hospital in Amman. Patients without insurance are treated at this hospital. It is crowded with a high patient to doctor ratio.

Transportation to: There is a bus from JU to this hospital or you can arrange a carpool with students.

Value: ++ clinical knowledge, + opportunities to contribute, ++ understanding systems

#### **Al Khalidi Hospital**

Contact: Dr. Khaled, [kal\\_salaymeh@hotmail.com](mailto:kal_salaymeh@hotmail.com), +962 077 733 6665

Location: Just South of 4th Circle

At this private hospital, Dr. Khaled works in pediatric cardiology along with pediatric cardiothoracic surgeons. There are opportunities to see congenital heart repairs (BT shunts, Glenn, Fontan procedures etc), CABGs, as well as patients in the ICU and outpatient setting. You will hear murmurs of BT shunts (similar to PDA), VSDs, aortic stenosis, pulmonic stenosis, etc.

Transportation to: Taxi

Value: ++ clinical knowledge, ++ understanding systems

#### **King Hussein Cancer Center**

Contact: Dr. Ayad Ahmed, [aahmed@khcc.jo](mailto:aahmed@khcc.jo),

Location: Next to JU Hospital, 15 minutes North of 7th Circle

At this private hospital, Dr. Ayad Ahmed serves as the Head of the Department of Bone Marrow Transplantation. Patients suffering from cancer are covered 100% for their care. Genetic testing for patients is covered allowing for more comprehensive investigations, e.g. immunodeficiency

syndromes or hematologic disorders. Additionally, patients who suffer from cancer will also be seen at KHCC for their diabetes or hypertension and managed within this center. Patients who receive bone marrow transplantation will be followed at KHCC for the rest of their life rather than with a primary doctor elsewhere.

**Diagnoses You may See:** Fanconi Anemia, Graft Versus Host Disease, Infantile Myelofibrosis  
**Transportation to:** Taxi to KHCC. Dr. Ahmed's office is on the 6th floor. Take Staff Elevators to 5th floor and go up the stairs to floor 6 then ask for directions to his office.

**Value:** ++ clinical knowledge, ++ understanding systems

### **King Hussein Medical Center in Royal Medical City**

**Contact:**Dr. Abeer to arrange in advance

**Location:** 8th Circle

At this military hospital, security is very high so arrangements need to be made in far in advance. This is the only free standing pediatric hospital in the country and more like a first world hospital similar to KHCC.

### **COMMON DIAGNOSES AND MANAGEMENT**

Within this section we will focus on the aspects of the work-up and management that differ from the United States.

#### **Cystic Fibrosis (CF)**

**Basic Science:** CF is an autosomal recessive disease affecting the digestive system, sweat glands, reproductive tract, and the lungs. Patients with CF have a genetic mutation in a single large gene on chromosome 7 that encodes for the cystic fibrosis transmembrane conductance regulator (CFTR) protein. Both copies of this gene are mutated in CF. This mutation causes an abnormal transport of chloride and sodium across the epithelium in the respiratory tract, which results in thickened, viscous airway secretions which are difficult to clear. CF is common in Jordan due to high rates of consanguinity.

**Presentation and Diagnosis:** In Jordan, they do not have newborn screening so CF usually presents with meconium ileus, respiratory symptoms, failure to thrive, and/or recurrent infections. The diagnosis is made by having a positive sweat chloride test. They do not routinely send genetic testing for CF. However, if the sweat chloride test is negative, but there is a high clinical suspicion, they will send genetic testing. If the sweat chloride test is equivocal, they will also send genetic testing.

**Management:** Similar to the US, although CFTR modulators are usually not available in Jordan.

#### **Diabetes Mellitus Type 1 (DM1)**

**Basic Science:** DM1 occurs when there is destruction of the insulin-producing beta cells in the islets of Langerhans in the pancreas. This is an autoimmune destruction that is thought to occur in genetically susceptible individuals after an environmental trigger.

**Presentation and Diagnosis:** The classic presentation is chronic polydipsia, polyuria, and weight loss. However, in more severe cases, patients can present in diabetic ketoacidosis. In Jordan, the diagnosis is made by having two or more fasting blood sugar readings greater than 126 mg/dL.

Management: The management of DM1 in Jordan is a bit different than what we do in the US. The Jordanian patients have difficulty converting carbohydrates to units of insulin so they use a mix insulin which is  $\frac{2}{3}$  long acting and  $\frac{1}{3}$  short acting. They give  $\frac{2}{3}$  of this dose in the morning and  $\frac{1}{3}$  of the dose in the evening. They do not use basal insulin dosing with short acting insulin at meal times.

### **Neonatal Sepsis**

Basic Science: Neonatal sepsis is much more common in Jordan than it is in the US. It can be classified as early- or late-onset sepsis. Early-onset is defined as the onset of symptoms before 7 days of age while late-onset is defined as onset greater than or equal to 7 days of age. Early-onset sepsis is usually due to vertical transmission by either contaminated amniotic fluid or during vaginal delivery from bacteria in the mother's lower genital tract. Late-onset sepsis can be due to either vertical transmission or horizontal transmission (direct contact with care providers or environmental sources). Group B streptococcus (GBS) and Escherichia coli (E. coli) are the most common causes for both early- and late-onset sepsis.

Presentation and diagnosis: Sepsis can present with fever, irritability, lethargy, respiratory symptoms, poor feeding, and/or unstable vital signs. Work-up in Jordan is very similar to that in the US. They obtain blood cultures, lumbar puncture (LP), urine culture, and CBC. The main difference is what studies they send on the CSF. For the first LP, they send the standard tests on CSF (gram stain, routine culture, cell count with differential, glucose, and protein). However, if the baby does not improve and no cultures return positive, they usually do a second LP and send this for herpes simplex virus. They do not save any CSF, so anytime they want more studies, they must do an additional LP.

Management: Broad-spectrum antibiotics are initiated immediately. They follow US guidelines and give empiric therapy with ampicillin and gentamicin.

### **Sarcoidosis**

Basic Science: The exact cause of sarcoidosis is not known but is thought to be caused by an altered immune response after exposure to environmental, occupational, or infectious agents. Collections of inflammatory cells termed granulomas can form in multiple organs and most commonly form in the lungs or lymph nodes (e.g. perihilar lymphadenopathy). Buzz word "noncaseating granuloma".

Presentation and Diagnosis: Patients may present with cough, dyspnea, chest pain, fatigue, weakness, weight loss, eye lesions, rash, or painful bumps. Diagnosis is based on clinical signs and symptoms, abnormalities on chest X-ray or CT, and histologic examination of tissue specimens. In patients suspected to have sarcoidosis, a comprehensive work-up is conducted to rule-out other disorders such as tuberculosis. The evaluation includes H&P, CBC, BMP, U/A, EKG, PPD, ophthalmologic exam, and chest X-ray often followed by CT.

Management: Primary management consists of anti-inflammatory drugs such as NSAIDS. More severe exacerbations are managed with glucocorticoids. Thirdly, if a response is not seen to glucocorticoids, immunosuppressants (e.g. methotrexate, azathioprine, or leflunomide) are utilized.

Interesting Fact: **Lofgren's syndrome** - fever, bilateral perihilar lymphadenopathy, arthralgias, and erythema nodosum

## **Beta Thalassemia**

Basic Science: Hemoglobin A is the most common type of hemoglobin in adults. HbA is a tetramer comprised of two alpha and two beta subunits non-covalently bound together. HbF is the primary form in infants and is comprised of two alpha and two gamma chains. Beta thalassemia is an autosomal recessive disorder caused by mutations in the HBB gene on chromosome 11. Decreased beta chain synthesis leads to decreased HbA which leads to a lower Hb concentration in the red blood cell and a subsequent microcytic anemia. Mutations in the beta globin gene are divided into  $\beta$ ,  $\beta^+$ , and  $\beta^0$ .  $\beta$  mutations are ones that do not reduce function.  $\beta^+$  mutations allow some  $\beta$  chain formation to occur.  $\beta^0$  mutations prevent all formation of  $\beta$  chains. Beta Thalassemia is then divided into major ( $\beta^0/\beta^0$ ), intermedia ( $\beta^+/\beta^+$ ,  $\beta^0/\beta^+$ ), and minor ( $\beta^+/\beta$ ,  $\beta^0/\beta$ ). Management includes blood transfusions; however, repeated transfusions over time may cause iron overload and toxicity. Iron as seen in hemochromatosis can deposit in endocrine glands (e.g. pituitary, thyroid, pancreas) and organs (e.g. brain, heart, and liver).

Presentation and Diagnosis: Thalassemia major typically presents in the first two years of life with severe anemia, poor growth, and skeletal abnormalities due to extramedullary hematopoiesis. Thalassemia intermedia may allow for a relatively normal life but require transfusions during illness or pregnancy. Thalassemia minor is relatively asymptomatic with microcytic anemia.

Management: In Jordan, hospitals such as Al Bashir Hospital have entire units dedicated to patients suffering from thalassemia. The management primarily pertains to thalassemia major patients, and on a daily basis, patients will have to use an external pump about the size of a water bottle to slowly infuse deferoxamine to chelate iron from the system. Deferoxamine is more effective when a lower dose is circulated through the body over a longer period of time. Therefore, the goal is to perform this therapy five to seven days per week for 8-12 hours. The longer the patient can tolerate therapy the better for their overall prognosis. To administer therapy, a small-gauge needle is inserted into the abdomen or thigh that must go through the dermis layer for safe and efficacious therapy. In addition to this daily regimen, patients suffering from thalassemia major are also on the following management plan:

- q3 months: CBC, BMP, LFTs
- q3-4 months: RBC transfusion with deferasirox or deferoxamine
- q6 months: folate, B12
- q12 months: abdominal U/S, Echo

Screening: In Jordan, screening is conducted before marriage and consists of a CBC. If a microcytic anemia is found the patient is considered to have beta thalassemia. If a couple undergoes screening and one partner has a low MCV and Hb and the other has a normal CBC, then hemoglobin electrophoresis will be carried out to determine if the partner with a normal CBC has any hemoglobin abnormalities.

## **COMMUNITY OUTREACH**

Palestinian Refugee Camp: There is an NGO called JCI which goes to the camp every Saturday to teach the refugees English.

Contact: Omar Hanash, 0792082550

## **NAVIGATING THE CITY**

Amman is a city navigated through the eight circles laid out from east to west. You can find most places based on the circle they are nearest.

The most common way to get around the city is by taking a taxi. There are plenty of taxis driving around and they are relatively easy to flag down. If the taxi is open, they often beep their horn at you to let you know. Taxis are generally safe and inexpensive. Make sure to get in marked yellow taxis only. Make sure they start the meter when you get in. Most rides around the city are about 2 JD or 2.80 USD. Tipping is usually about 10%.

Most taxi drivers speak very little English so communicating with them is often very difficult. It is helpful to either show them pictures of where you want to go or have the place written in Arabic (have a friend write it in Arabic for you or use google translate).

Unlike in the US, taxi drivers often do not know where restaurants/cafes/stores are located. Before getting in the taxi, know the general area of the place you are going and if possible pull up the location on google maps. Sometimes we would show the GPS directions (on google maps or waze) to the taxi driver to help him find the location.

Another option for getting around the city is uber. It is a little more expensive but you can type in your destination and circumvent the language barrier.

## **STAYING CONNECTED**

Buying a sim card when you arrive in Jordan is an easy and cheap way to stay connected if you have an unlocked phone. Most android phones are unlocked and you can just put the Jordanian sim card in your phone. There are two big phone companies in Jordan - Zain and Orange. Zain has cheap month long plans. You can get calling minutes, text messaging, and 1GB data for about \$17 usd. You can find Zain and Orange all around Amman, common locations are in SmartBuy (similar to Best Buy in the US) or in grocery stores (Safeway).

WiFi in Jordan is limited and even places that have WiFi, the connection is not very strong. It is recommended to buy a USB WiFi device from Zain or Orange which you can plug into your laptop and create your own WiFi network.

## **PACKING FOR JORDAN**

- White Coat
- Stethoscope
- 4-5 clinic outfits (bottoms - pants or full-length skirts, tops - always cover shoulders)
- 1-2 pairs of scrubs for days in ER or OR

- Bag or Purse to carry to Hospital
- Small Notebook (3x5 inches) for clinic or for others to write helpful words in Arabic
- 1 universal charger (possibly add one splitter for dual outlets)
- 1 portable USB charger (cheap on Amazon)
- Tiger Balm (so helpful for bug bites, headaches, and when overheated)
- US dollars (consider bringing full amount to pay rent for the month and possibly spending money)
- 2 work-out/hiking outfits (basketball shorts that cover knees or full-length spandex)
- 2 weekend outfits that cover shoulders and legs
- Hand-Sanitizer
- Medications
- First-Aid kit

### **HELPFUL EXPRESSIONS**

<b>English Word</b>	<b>Arabic Pronunciation</b>
Hi	Mar·hā·bān
Hello	a·sal·am·a·lā·kum
How are you?	kā·fek
I am good. (literally means Thank God)	Hum·du·le·la
Thank you	shuk·rān
You're welcome	<u>āa·fwan</u>
No	La
Yes	<u>naāam</u>
Excuse me	Alma'derah
I don't understand	lā afham
sorry	asef
Goodbye	Ma·sa·lam·a
medicine	teb
student	tal·eb
doctor	doc·tor·ah
hospital	mus·tash·fa

Toilet	hamm-am
enough	bas
delicious	za-kē
stop	wa-ef

## **ARRIVAL**

### **At the Airport**

Visa can be bought on site!

When you arrive in Amman, you will make your way to Passport Control as usual. Across from Passport Control are two ATMs and two money exchanges. The exchange rates here are not good. Better exchange rates can be found at Western Unions in Amman or other various Exchange stores. ATM fees are similar at these ATMs in the airport to ones within the city. However, you CAN pay the 40 JOD for the Visa with a Visa credit card even though the agents may hassle you for a few moments at first.

### **Getting to Your Hotel/Apt/Airbnb from Airport**

Depending on where you are staying, you can take a taxi, Uber, or try to pre-arrange for a pickup to your destination. IMPORTANT: Have a map of the location you want to go. Use the Wifi at the airport to try and find the destination through Waze so you have some form of GPS. Also, have a phone number to the location where you are headed (hotel etc) where someone can speak in Arabic to the driver in case he has trouble finding the destination. Remember there are no addresses.

## **DAY-TO-DAY LIFE**

### **Getting to Work each Day**

For JU, use the KHCC logo with King Hussein Cancer Center written in English and Arabic beneath it. The logo is inserted below and is a simple blue and gold image found on Google Images. This was pivotal to getting to JU each day by taxi. All drivers knew where this was and dropped us at the base of KHCC which was also the base of JU. From here, it is about a three minute walk up along a nice paved path to JU Hospital.

### **Where to live**

Housing around JU is convenient for the majority of the rotation with shops and restaurants within walking distance. Abdoun and Rainbow Street are two lively areas with places to eat, shop, grab coffee, or grab a drink. Both of these areas are filled with other young students and professionals and are the more progressive areas of the city. The commute from Rainbow Street to JU during rush hour and throughout most of the day may be an hour or more so take

this into consideration when choosing housing. Due to traffic, Abdoun may be the better choice of the two.

### **Day to Day Tips**

1. Don't drink the water :)
2. 99% of patients speak only Arabic. Anticipate this barrier and seek out providers who help you to engage with patients with them.
3. Students and providers speak Arabic as the primary language and interject English when discussing medicine. However, the contacts we have provided throughout this guide went out of their way to remind everyone involved to please speak in English which provided for an excellent learning experience.
4. There are no addresses to restaurants, hospitals, etc. so use your Google Maps, Waze, and photographs of the places with English and Arabic to navigate.
5. Smoking is the norm in Amman in 95% of public places and taxis. Refer to cafe recs for non-smoking places.
6. Communication on a daily basis is a huge barrier including taxis to locations, ordering food so make friends at JU or locally, and they will love to help you bridge this gap.
7. Most places accept cash only, Bank of America has a \$16-17 fee per transaction and limits your ATM withdrawals per withdrawal to about \$350 at a time. Exchange rates at local Western Unions in Amman have been very good with a smaller percent loss per exchange than withdrawal from ATM. Consider bringing cash and exchanging it here in Amman.
8. Traffic laws are not really enforced including speeding, wearing seatbelts, helmets, or driving under the influence. Make sure you always are wearing a seatbelt!

### **Cafe/restaurant recommendations**

Hashem's - Mamdouh Al Sarayra St and Abdallah Ghawsha St - local cuisine for a local price

Joz Hind - Paris Circle - family run restaurant with delicious modern cuisine that changes daily

Schwarma En Saj - Abdallah Ghawsha St - best schwarma!

Blue Fig - Abdoun - cafe with great atmosphere and seating but a little pricey

Cafe Kepi - Paris Circle - expat cafe

Books @ Cafe - Rainbow Street - cafe, book store, and evening hangout

Zorba - Rainbow Street - delicious local food with a great view!

Tamreyet Omar - 2nd circle - delicious elephant ear like dessert with the most unique spongy filling. Ledida!

Stradda Cafe - Rainbow Street

Shams El Balad - off Rainbow Street - Cafe with organic food and treats, Good Wifi, Smoke Free

Yara's Corner - 7th Circle - Coffee, Dessert, Wifi, Downstairs is smoke free

### **Food Delivery**

Hellofood and iFood Apps

Food delivery is a popular choice in Amman since the city is fairly sprawling and taxis are an added cost. Download Hellofood and iFood apps to your phone while in the U.S. or when you arrive. After a long day, it's convenient to get a delicious local cuisine at a cheap price right at your door! Al Akeed is great for delivery and often has 50% off specials on Hellofood.

## **HELPFUL IMAGES TO HAVE ON YOUR PHONE**



## **TRAVEL RECOMMENDATIONS**

### **Wadi Rum/Petra 2-day trip**

Getting there: Take the Jett Bus from 7th circle (behind safeway) to Aqaba. It takes about 4 hours and costs ~7JD per person. Make sure to reserve your bus ticket in advance for the buses do fill up! You can then take a cab to Wadi Rum (this can be arranged by Bedouin Lifestyles Camp - see below).

Wadi Rum: A beautiful desert oasis!! It is a must see while in Jordan. Book a tour with overnight camping to get the full experience. We recommend Bedouin Lifestyle Camp. Book the half day Jeep tour with overnight camping. The tour leaves from Wadi Rum Village at 2pm. You will take a jeep around the desert and see amazing views, climb some mountains, go sandboarding, and watch the sunset. You will then head back to the campsite, have a traditional Bedouin dinner, songs, and dance. The campsite has very nice tents with cots, but you can opt to sleep under the stars! The next morning they will take you back to Wadi Rum Village where you can catch a bus to Petra.

Petra: The most detailed rock-cut architecture you will ever see! Also a must-see while in Jordan! The entrance fee is 50 JD. Make sure you bring your passport to get this price (it is more expensive if you cannot prove you have been in Jordan for more than 1 or 2 days). You do not need a tour or a guide for this. There will be many people trying to convince you to take a horse ride/camel ride/donkey ride to the entrance/around the site, but these really are not necessary. A half day is enough time to see most of the site.

Getting home: Take the JETT bus from Petra to Amman. It leaves at 5pm.

### **Wadi Hiking**

- Hidan - It's long and hard, but great.
- Mukheris - beautiful, on the Dead Sea
- Mujib - the most famous Dead Sea wadi
- Jerash/Ajloun - very green, more casual hiking

If you want to use a company, Tropical Desert is probably the most reputable. The first and last Saturday of each month is Ladies' Day and it's half-off. Check their Facebook for their schedule.

### **Egypt 2-day itinerary**

Getting there: Download the Egypt Air app and go into the Settings feature. Change the Settings from Worldwide to Egypt and book your flights early and get the local prices. Book a ticket from Amman round-trip to Luxor. All the flights will route through Cairo. Choose a layover in Cairo for 15-24 hours and see the city!

Luxor: Stay at Cleopatra hotel (\$20 per night) and email ahead to book a full day tour (8a-4p) followed by a felluca (sailboat ride) down the Nile river to watch the sunset. Best things to ask to be included in your tour are Valley of the Kings (unbelievable tombs and hieroglyphics), Valley of the Workers (Deir el-Medina), optional Alabaster pottery site, Karnak Temple, and Luxor Temple. When the tour finishes around 4pm, grab a cup of the local sugar cane juice and arrange for your felluca to pick you up on the east bank to sail (drift really) down the Nile. It is beautiful and peaceful on the boat. Head back to Cleopatra hotel for dinner on the rooftop of the hotel. Beautiful views and a delicious meal right at home!

Cairo: Stay at Golden Park Hotel (\$54 per night) if you have a night in Cairo. Book with Memphis Tours (Maha was the best tour guide I have ever had. Request if possible). Book a tour that includes the Great Pyramids, camel ride, and Sphinx are a must. Go inside the Small pyramid not the big one. Cheaper and only have to crouch down and climb in/out for 15 minutes rather than an hour. Optional is Papyrus "factory" and Khan el-Khalili (Souq Quarter). The Egyptian Museum is currently a bit disorganized but the new museum should be opening in 2016 and is supposed to be very impressive!

### **Lebanon 2-day itinerary**

Getting there: Use Kayak and book round-trip to Beirut on Middle Eastern Airlines or Royal Jordanian.

Stay: WH Hotel was \$77 per night and in a great location in Hamra. Anywhere in Hamra is an ideal location for walking around, restaurants, and nightlife.

Tours in Lebanon are not recommended from personal and others' experiences. A better plan is to arrange a driver to go to Geitta Grotto for one day and a driver to go to Byblos Castle and quaint village another day. Explore Beirut, Pigeon Rock, and the downtown scenery in your afternoons or evenings.

## **OTHER CONTACTS**

### **In Jordan**

- Majd & Majd: THEY ARE AWESOME!! They are both interns at King Hussein Medical Center (2015-2016). They spent a month at Vanderbilt during their 6th year of medical school so they are very familiar with the American medical system. They are great resources and love to show American students around! Definitely get dinner with them while you are in Jordan!
  - Contact: [majdsoubani@hotmail.com](mailto:majdsoubani@hotmail.com) and [majd.khasawneh@gmail.com](mailto:majd.khasawneh@gmail.com)

- Jafar: 6th year medical student (2015-2016). Will do a rotation at Vanderbilt in February/March 2016. Very helpful with showing us around JUH and helping us get in contact with consultants.
- Dr. Amal: [amalbm1@hotmail.com](mailto:amalbm1@hotmail.com) - Senior Pediatrics resident
- Dr. Hanan: [hanankhalil888@gmail.com](mailto:hanankhalil888@gmail.com) - Pediatrics Resident at JUH
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- Christin Quinn
- Ishan Asokan
- Cherie Fathy