

## **CURRICULUM-**

**Rotation:** International Elective - Bhutan

**Physician director for the rotation:** David Windus, M.D.

**Administrative coordinator or secretary:**

Kathy Corey, 362-7122, [coreyk@dom.wustl.edu](mailto:coreyk@dom.wustl.edu) .

Ann Winn, 454-3846, Jack Ladenson's administrative assistant

She has extensive experience with communications with the professionals in Bhutan and with travel and visa arrangements.

**Description of the rotation:**

This rotation is an elective experience in an international environment in Bhutan. The rotation is 4 weeks and designed to provide first hand clinical experience in the delivery of medical care in a developing country. Experiences will be in the out-patient and inpatient settings.

General country Background

Bhutan is a small country between China and India with a population of around 700,000. The government is in transition between an absolute and constitutional monarchy. Ratification of the constitution and election of the first parliament will occur in 2008. The economy is 80% subsistence farming and the principle sources of country revenues are hydroelectric power and tourism. The predominant religion in the country is Buddhism. Bhutan has close political and economic ties with India. The country is not involved in any regional conflicts.

Overview of Pathology Overseas-Sponsored Activities in Bhutan

The principle efforts for the Saint Louis-based medical team in Bhutan have been directed at improvement in laboratory services and physician and other healthcare personnel education in diabetes, hypertension and kidney diseases. Specific activities have been the development of symposia on diabetes and hypertension on two different visits, development of a diabetes educator program, and direct observation and participation in patient care. In addition, nutrition education and the development of nutrition education materials have been initiated. Ongoing goals are promotion of acute and chronic disease management through improvements in diagnostic services, general medical education, and provision of periodic sub-specialty expertise.

Overview of Healthcare and Facilities in Bhutan

Healthcare is free and all health professionals are civil service employees. Currently, most physicians receive medical education in India. In addition, physicians from other countries are employed to fill gaps in expertise or to cover physicians that are away for further training. There are approximately 7-8 internal medicine specialists in the country but no internal medicine sub-specialty trained physicians. Three hospitals have been designated as referral centers for more complex medical problems. They are located in Thimphu, Mongar (east), and Gelephu (south). The Jigme Dorji Wangchuk (JDW) National Referral Hospital in Thimphu currently is the main hospital in the country. Patients are in charge of their own medical records which usually

includes a notebook, lab reports, and X-rays. Records brought to clinic visits are often incomplete. Records of clinic visits are hand-written by the physician. These notes are often quite short as little time is available per patient (~5 minutes is fairly common).

JDW National Referral Hospital. This is the main hospital in Bhutan and is located in the capitol, Thimphu. This facility provides the most sophisticated evaluation and management in the country. The hospital is in a transition period as new construction will expand the number of beds by the end of 2007. The recent addition of CT and MRI and improvements of lab services have enhanced diagnostic options. A busy outpatient department sees patients with a variety of problems on daily basis. There are approximately 40 general medicine beds and a three-bed intensive care unit. The hospital has a library with many current textbooks. Journals, however, are in short supply.

District Hospitals and Basic Health Units (BHU). There are 27 district hospitals in Bhutan. Several are within 1 days travel from the main city of Thimphu. District Hospitals care for patients with uncomplicated maternity issues, infections, anemia, and other health problems not requiring higher levels of evaluation or management. They are staffed by 1-2 junior physicians without specialty training. The BHUs are staffed by non-physician health workers and care for patients with minor health issues such as upper respiratory infections.

## **Logistics:**

**When, where, and to whom to report on the first day:** The resident will have an extensive one-on-one orientation with Dr. Windus prior to travel to Bhutan. Information regarding travel arrangements, accommodations, visa applications, cultural issues and travel health advice will be provided at that time. Travel to and from Bhutan will be arranged to coincide as closely as possible to the dates of the four-week block. Once in Bhutan, the resident will receive an overview and tour of the medical facilities on the first day by the preceptors.

## **Other Issues related to the Bhutan Elective**

1. Accommodations, Food and Travel Arrangements. The trip to Bhutan takes 2 days including connecting flights in Tokyo and a brief overnight stay in Bangkok before traveling to Bhutan early the next morning. There is an approximately 12-hour time difference between Bhutan and the US. The drive from the airport in Paro, Bhutan to the capitol in Thimphu takes ~ 2 hours. Accommodations in Thimphu will either be a basic hotel or an apartment within walking distance from the hospital. The Health Ministry may provide transportation in some instances. Food is relatively inexpensive. Evening meals will be eaten at local restaurants. Ear plugs are strongly recommended as barking dogs are a frequent occurrence through the night. The roads in Bhutan, although usually surfaced, are tortuous and slow. Persons prone to motion sickness should take appropriate preventive therapies.
2. Language. The official language of Bhutan is Dzongka. However, all government, business and education are transacted in English. In the healthcare system, English is spoken by the physicians, nurses and other staff. Communication with patients in families may be in English or facilitated by the professional staff.
3. Health Issues. There are no significant health risks other than typical traveler's infections. Malaria is not a risk at the high altitudes of the towns. Bottled water is recommended for drinking. Tuberculosis is common in the local population. HIV has been detected in 100-200 persons in the country.

4. Climate and altitude. The climate is mild during the day but can drop into the 40's and 50's at night. Fall tends to be dry and sunny. In the spring rain is more frequent but is not sustained. The altitude of Thimphu is about 6,000 feet. Some travel to neighboring towns requires crossing passes of about 10,000 ft.
5. Clothing. Local professionals wear traditional garb as mandated by government rules during work hours. Visiting professionals typically dress in "business casual" (collared shirt, slacks, leather shoes). Ties are not needed. A sport coat or equivalent is appropriate and functional given the cool temperatures in the buildings of the hospital (unheated). A white coat would also be suitable. Laundry services are readily available at the hotels. More casual wear is quite acceptable for most evenings and weekend excursions.
6. Electronic Communications. Local telephone service is reliable and a cell phone network is good. Internet access at the hotels is slow (dial-up). There are several internet cafes although the speed of service is uneven. The hospital has higher speed internet access which is available at several locations.
7. Currency, credit cards and ATM's. The official currency of Bhutan is the Ngultrum (~40 to the USD). The value of this currency is tied to the Indian Rupee. Money can be changed at many hotels and at the Bhutan bank. Credit cards are only accepted at a few shops and ATM's don't exist.
8. Bhutan Medical Privileges – Temporary privileges to practice medicine will be granted by the Ministry of Health for the duration of the visit.

### **Duties/responsibilities:**

#### Resident Activities for International Elective in Bhutan

1. Morning clinics at JDW National Referral Hospital (daily (M-F 9 AM to ~ noon). Resident will observe and directly interact with patients presenting with a broad range of general medical problems and with problems related to kidney disease, diabetes, hypertension several days each week. Patient encounters will be logged by presenting problem, assessment and plan. The elective preceptors will supervise these activities.
2. Afternoon hospital consultation. The resident will see hospitalized patients at the JDW National Referral Hospital in the role of a medical consultant. These cases will be presented to the preceptor using the standard model used at Barnes-Jewish Hospital. A differential diagnosis, plan of evaluation and treatment will be devised and implemented. Case summaries will be recorded on a laptop computer, printed on paper, and included in the patient's permanent medical record. The resident will provide daily follow-up of these patients and write progress notes during the patient's hospitalization. Some of these cases will be presented in a case conference involving other internal medicine and general physicians at the hospital.
3. Conference attendance. Typically, a series of continuing medical education lectures are included as part of the visits when Washington University faculty are involved. The resident will be expected to attend and may be asked to participate in some aspects of these conferences.
4. Other Health System Experiences. The resident will become familiar with the indigenous health system. Bhutan continues to support the traditional indigenous health services. The indigenous health medication demonstration area and manufacturing facility is located in Thimphu. A private tour will be arranged of the facility. In addition, arrangements will be made to visit one of the nearby district hospitals during the visit.
5. Cultural Experiences. The resident will participate in a variety of cultural education experiences as organized by the preceptor.

**Hours, call:** No overnight call. Resident will have at least one day off per week.

**Maximum # residents per month:** 1

**Minimum length of rotation:** 4 weeks

**Rotation is appropriate for:** PGY-2 or PGY-3

---

**Curriculum:**

**Educational purpose:** to provide first hand clinical experience in the delivery of medical care in a developing country.

All of the Competency Milestones are pertinent to this rotation. Areas of special focus are noted below.

- **Patient care**
  - Gather accurate information about patients, including an appropriate history and physical examination, in a culturally sensitive manner; interpret physical findings
  - Synthesize data into a prioritized problem list and differential diagnosis, then formulate diagnostic and therapeutic plans considering the patient and health system resource limitations in Bhutan
  - Appropriate monitoring and follow up of patients
  
- **Medical knowledge**
  - Understand the epidemiology of common communicable and non-communicable diseases related to the level of country development
  - Understand the choice and cost-effective use of available therapeutic options for diabetes, hypertension and kidney diseases, incorporating understanding of their indications, contraindications, complications and limitations
  - Understand the manifestation of diabetes, hypertension, and kidney disease in the Bhutanese population.
  
- **Practice-based learning and improvement**
  - Recognize limitations of knowledge and judgment, ask for help when needed, and be self motivated to acquire knowledge
  - Accept feedback, learn from own errors and develop self-improvement plans
  - Respond to problems that arise in a manner that reflects more than protocol management
  
- **Interpersonal and communication skills**
  - Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated; and all members of the health care team

- o Counsel and educate patients and their families in a culturally sensitive and appropriate manner
  - o Facilitate the learning of students and other health care professionals
  - o Demonstrate ability to convey clinical information accurately and concisely in oral presentations and in chart notes
- **Professionalism**
    - o Demonstrate respect, compassion, and integrity
    - o Demonstrate a commitment to excellence and on-going professional development
    - o Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and other aspects of clinical care
    - o Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities
- **Systems-based practice**
    - o Work effectively with others (such as nurses, secretaries, nutritionist, interpreters, technicians) as a member of a health care team
    - o Advocate for quality patient care and assist patients in dealing with system complexities
    - o Residents should develop proficiency in leading the health care team, organizing and managing medical care
    - o Learn the cost-effective use of diagnostic and therapeutic technology

### **Teaching methods:**

- The resident will be supervised by a Washington University Faculty member or Senior Physicians from Bhutan, or both. These individuals will be referred to as the "Preceptors"
- A series of continuing medical education lectures are included as part of the visits if Washington University faculty are involved. The resident expected to attend and may be asked to participate in some aspects of these conferences
- Daily Teaching Rounds
- Weekly conferences
- The resident will participate in a variety of cultural education experiences as organized by the preceptor

**The mix of diseases, patient characteristics, and types of clinical encounters, procedures, and services:** Patients from Bhutan and other surrounding cities and villages, all which encompass a broad range of ages and states of health

### **Reading lists, pathological material, and other educational resources to be used:**

- A reading list of pertinent review articles will be provided.
- Additional suggested background reading

General

1. Jamie Zeppa, *Beyond the Sky and the Sky – A Journey into Bhutan*, Riverhead Books, 1999
2. Barbara Crossette, *So Close to Heaven – The Vanishing Buddhist Kingdoms of the Himalayas*, Vintage Books, 1995

**Method of evaluation of resident performance:** A copy of the house officer evaluation form found on the web-based program (MyEvaluations) will be provided to the director, Dr. Windus or the preceptor for completion at the end of the rotation. Verbal feedback will also be elicited by the resident throughout the rotation.

**Level of residents' supervision by faculty members in patient care activities:**

The Washington University attending physician or local preceptor will see all inpatient and outpatients to assure proper supervision of the resident.

- The attending physician will observe the resident performing specific tasks of patient management such as the interview and physical examination, choice of diagnostic studies, formulation of differential diagnosis and problem lists, development of plans for short-term and long-term medical management, communication of treatment plans, invasive procedures, and discharge planning in the case of hospitalized patients.
- Chart auditing for format and quality of data entry should be done, with feedback to the resident.