

# The Purdue Pharmacy Kenya Program Anticoagulation Services

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## BACKGROUND

- In 2003, Purdue University College of Pharmacy joined the collaboration to provide pharmaceutical care.
- Each year, about 200,000 new cases of rheumatic heart disease (RHD) arise in Kenya. Anticoagulation therapy and related monitoring is necessary to manage valvular dysfunction associated with RHD.
- Since 2004, pharmacy students have been going to Kenya for eight week advanced clerkship rotations.
- The pharmacy department at Moi Teaching and Referral Hospital (MTRH) and Purdue University have initiated a pharmacist managed anticoagulation service for patients, including those who could otherwise not afford this life-saving therapy.

## AMPATH

- In 2001, Indiana University School of Medicine and Moi University School of Medicine initiated the partnership program USAID-AMPATH (The United States Agency for International Development-Academic Model Providing Access to Healthcare) to address the HIV/AIDS crisis in Western Kenya.

## OBJECTIVES

- Engage students in a service-learning initiative that develops their knowledge and skills for providing anticoagulation services.
- Be able to manage challenges when providing clinical pharmacy services to patients in a resource-constrained setting.
- Expose students to cultural diversity and integrate this into patient care services.

## METHODS

- An application was submitted through the Office of Engagement at Purdue University for a Community Service/ Service-Learning Student Grant to support the anticoagulation services.
- The funds obtained from the student grant program were used for the following expenditures:
  - PT/INR testing strips
  - Medications for anticoagulation
  - Transportation (for students to/from clinic)
  - Printing and publicity (copying of encounter forms)
- The pharmacist managed anticoagulation clinic provides protocol-based anticoagulation services to both inpatients and outpatients.
- Pharmacy students assist in providing anticoagulation services under the supervision of a Kenyan clinical pharmacist where they help with the following tasks:
  - Complete patient interviews
  - Provide finger-stick PT/INR testing
  - Fill medication pillboxes
  - Provide education to patients and their families
- As part of the rotation requirements, students round with the medical team at MTRH where they help identify patients needing anticoagulation therapy.
- Students serve as educational resources for patients and their families.

## STUDENT COMMENTS

- “I valued the interaction I had with our Kenyan counterparts.”
- “...working in a resource-constrained setting helped me to develop innovative ways to approach problems.”
- “I feel as if I truly helped many people.”

## PROGRAM IMPACT

- About 43% of outpatient cardiology clinic patients were candidates for oral anticoagulation.
  - An estimate of 126 of 293 patients per year (95%CI: 37.96-47.96)
- 4% of MTRH inpatients were candidates for anticoagulation.
  - An estimate of 202 of 5055 inpatients per year (95% CI: 2.14-5.08)
- The average time in therapeutic range (TTR) was 55% for 170 patients assessed since the inception of the clinic. This is consistent with clinics in resource-rich settings.
- Pharmacy students have assisted in 2 national poster presentations and the publication of 2 professional manuscripts describing the clinic.

## CONCLUSION

- Anticoagulation is an area of clinical pharmacy practice that requires expertise in testing and managing patients in order to provide the best care.
- Participation in this service-learning experience provides pharmacy students with hands-on experience to develop their clinical skills while completing their rotation in Kenya.



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**DISCLOSURE:** Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.