

Meetings with Pharmaceutical Manufacturers in the Greater China Region

December 10-28, 2012

Trip Report

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Executive Summary

Dr. Allan Hong held meetings with three manufacturers in the Greater China Region to discuss the Original Equipment Manufacturer (OEM)/contract manufacturing business model and the World Health Organization (WHO) Prequalification (PQ) program for second-line anti-tuberculosis medicines.

After negotiations on Capreomycin and Kanamycin finished pharmaceutical product (FPP) cost breakdowns, two manufacturers out of the three who had been identified as potential OEM/Contract Manufacturing service providers for PQM reached agreements with PQM.

Dr. Hong and Mr. Teferi Bedane also provided technical assistance to two companies—one producing Kanamycin active pharmaceutical ingredient (API) and one producing Capreomycin FPP—for upcoming WHO PQ inspections.

Dr. Hong also visited another Kanamycin API producer to assess its potential for WHO PQ, but found the company needing significant capital investment and therefore not a potential candidate.

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About PQM

The Promoting the Quality of Medicines (PQM) program, funded by the U.S. Agency for International Development (USAID), is the successor of the Drug Quality and Information (DQI) program implemented by the United States Pharmacopeia (USP). PQM is USAID’s response to the growing challenge posed by the proliferation of counterfeit and substandard medicines. By providing technical assistance to developing countries, PQM helps build local capacity in medicine quality assurance systems, increase the supply of quality medicines to priority USAID health programs, and ensure the quality and safety of medicines globally. This document does not necessarily represent the views or opinions of USAID or the United States Government. It may be reproduced if credit is given to PQM and USP.

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ACRONYMS

API	Active Pharmaceutical Ingredient
CAPA	Corrective and Preventive Action
DQI	Drug Quality and Information Program
FPP	Finished Pharmaceutical Product
GMP	Good Manufacturing Practices
MF	Master File
OEM	Original Equipment Manufacturer
PQ	Prequalification
PQM	Promoting the Quality of Medicines Program
TA	Technical Assistance
TB	Tuberculosis
USAID	United States Agency for International Development
USP	United States Pharmacopeia
WHO	World Health Organization

Background

Tuberculosis (TB) is a global concern, and PQM has actively contributed to the USAID strategic objective of “increased use of effective interventions to reduce the threat of infectious diseases, including tuberculosis” (P.E.1.2 -TB). PQM assists countries to implement anti-TB medicine quality monitoring, and in 2008, began providing technical assistance to interested companies on the preparation of medicine dossiers they submit to the World Health Organization (WHO) with their "Expressions of Interest" for the WHO Prequalification (PQ) Program.

Purpose of Trip

The purposes of this trip were to:

- Meet with three pharmaceutical companies to discuss their interest in PQM’s Original Equipment Manufacturer (OEM)/contract manufacturing business model and the results of their feasibility studies
- Help Fuzhou Fuxin on their Kanamycin active pharmaceutical ingredient (API) project and Hisun Pharma on their Capreomycin finished pharmaceutical product (FPP) project for future WHO inspections
- Determine Benxi Haida Pharma’s Good Manufacturing Practices (GMP) status for potential application to the WHO PQ program

Overview of Activities

December 10-14, 2012

Dr. Hong negotiated with Baush Pharma Hong Kong, Interpharma Access Hong Kong, and Sagent Hong Kong Pharma on unit and service cost breakdowns to qualify two companies for PQM’s OEM/contract manufacturing project. Sagent Hong Kong Pharma and PQM cannot reach an agreement on breakdown costs; therefore, Sagent Hong Kong Pharma was disqualified.

December 17-21, 2012

Dr. Hong and Mr. Teferi Bedane met with staff from Fuzhou Fuxin Pharma and Zhejiang Hisun Pharma for Kanamycin API and Capreomycin FPP, respectively, to review their corrective and preventive action (CAPA) plan—based on an earlier PQM audit—to make sure they would be ready for a WHO PQ inspection. Fuzhou Fuxin also agreed to submit their Kanamycin API Master File (MF) to WHO PQ by March 2013.

December 26-27, 2012

Dr. Hong visited Benxi Haida Pharma (a Kanamycin API manufacturer) and discovered that WHO PQ is unlikely without significant capital investment. Following the visit, a recommendation was made to take Benxi Haida’s Kanamycin API in crude form to be further re-crystallized in a WHO PQ approved facility. It is critical to have a second Kanamycin API supplier.

Details of the meetings with the individual companies are included in the chart below. For explanations of the acronyms used in the chart, please refer to the master acronym list on page 5.

Company Name	Project	Status	Next Steps
Zhejiang Hisun Pharma, Jiaojiang City, Zhejiang Province, China	Capreomycin FPP	This was a follow-up inspection based on a June 2012 audit to assess progress on CAPAs.	As of the writing of this report, Hisun passed the FPP WHO inspection in Jan 2013; waiting for WHO approval based on the submitted CAPA. No more inspection is needed there.
Fuzhou Fuxin Pharma, Fuzhou City, Fujian Province, China	Kanamycin API	CAPA implementation is in progress. Further TA was given, and the company agreed to send their API MF to WHO PQ by March 2013.	PQM will review all CAPAs and the API MF on Kanamycin before the company submits them to WHO PQ.
Baush Pharma Hong Kong	Capreomycin FPP	After negotiations on the unit and other service cost breakdowns, an agreement was reached. A good discount on the GDF price was agreed upon.	Pending USAID's endorsement to proceed.
Interpharma Access Hong Kong	Kanamycin FPP	After negotiations on the unit and other service cost breakdowns, an agreement was reached. A good discount of GDF price was agreed upon.	Pending USAID's endorsement to proceed.
Sagent Hong Kong Pharma	Capreomycin & Kanamycin FPPs	After negotiations on FPP unit cost breakdowns, no agreement could be reached.	This company dropped out of consideration for PQM's OEM/contract manufacturing program.
Benxi Haida Pharma, Benxi, Liaoning, China	Kanamycin API	A quick walk through indicated that this company is far from WHO PQ requirements. Much investment is needed.	Another WHO PQ company in China will have to be found to take Benxi Haida's Kanamycin crude API for re-crystallization for WHO PQ.

Conclusion

This trip was successful, with two companies qualified for further USAID endorsement to proceed as PQM OEM/contract manufacturing projects. PQM also gave technical assistance to two additional companies to help them prepare for upcoming WHO PQ inspections. It was discovered that Benxi Haida Pharma's Kanamycin API process is not adequate for WHO PQ without significant investment.