China Distribution System
– Drug/OTC/Device

February 25, 2010

Presented by: Mary Li, Senior Vice President
PBM’s China Office

Copyright © 2010 Pacific Bridge Medical. All rights reserved. This content is protected by US and International copyright laws and may not be copied, reprinted, published, translated, resold, hosted, or otherwise distributed by any means without explicit permission. Disclaimer: the information contained in this report is the opinion of Pacific Bridge Medical, a subsidiary of Pacific Bridge, Inc. It is provided for general information purposes only, and does not constitute professional advice. We believe the contents to be true and accurate at the date of writing but can give no assurances or warranties regarding the accuracy, currency, or applicability of any of the contents in relation to specific situations and particular circumstances.
Table of Contents

- Intro to China/key markets
- Building your distributor team
  - Areas to focus on
- Find the right distributors
  - Medical devices
  - Drugs
- Medical distribution channels
  - Hospitals
    - Drugs
    - Medical Devices
  - Pharmacies
    - Drugs
    - Medical Devices
- Drug channel distribution in China market – case studies
- Difference in selling drug/OTC/devices
  - Distribution flow
  - Pricing
- Listing
- Bidding
- Reimbursement
  - Tips for success and pitfalls to avoid
China

1.3 billion population
31 provinces
666 cities
Build your distribution team
Building your distribution team
- Regional differences in China

<table>
<thead>
<tr>
<th>Region</th>
<th># of Provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. East</td>
<td>3</td>
</tr>
<tr>
<td>North</td>
<td>5</td>
</tr>
<tr>
<td>N. West</td>
<td>5</td>
</tr>
<tr>
<td>S. West</td>
<td>5</td>
</tr>
<tr>
<td>Middle</td>
<td>3</td>
</tr>
<tr>
<td>East</td>
<td>7</td>
</tr>
<tr>
<td>South</td>
<td>3</td>
</tr>
</tbody>
</table>
### Top 10 cities with GDP ranking

<table>
<thead>
<tr>
<th>GDP Ranking</th>
<th>Name of city</th>
<th>Region</th>
<th>Remarks</th>
<th>Population (,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shanghai</td>
<td>East</td>
<td>Municipality</td>
<td>18,580</td>
</tr>
<tr>
<td>2</td>
<td>Beijing</td>
<td>North</td>
<td>Municipality</td>
<td>16,330</td>
</tr>
<tr>
<td>3</td>
<td>Guangzhou</td>
<td>South</td>
<td>Capital city of province</td>
<td>10,040</td>
</tr>
<tr>
<td>4</td>
<td>Shenzhen</td>
<td>South</td>
<td>Coastal city</td>
<td>8,760</td>
</tr>
<tr>
<td>5</td>
<td>Suzhou</td>
<td>East</td>
<td>With heavy foreign investment</td>
<td>6,240</td>
</tr>
<tr>
<td>6</td>
<td>Tianjin</td>
<td>North</td>
<td>Municipality</td>
<td>11,150</td>
</tr>
<tr>
<td>7</td>
<td>Chongqing</td>
<td>South West</td>
<td>Municipality</td>
<td>28,160</td>
</tr>
<tr>
<td>8</td>
<td>Hangzhou</td>
<td>East</td>
<td>Capital city of province</td>
<td>7,860</td>
</tr>
<tr>
<td>9</td>
<td>Qingdao</td>
<td>North</td>
<td>Coastal city</td>
<td>7,570</td>
</tr>
<tr>
<td>10</td>
<td>Wuxi</td>
<td>East</td>
<td>With heavy foreign investment</td>
<td>5,990</td>
</tr>
</tbody>
</table>
## Top 11-20 cities with GDP ranking

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name of City</th>
<th>Region</th>
<th>Remarks</th>
<th>Population (,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Fushan</td>
<td>South</td>
<td>With heavy foreign investment</td>
<td>6,100</td>
</tr>
<tr>
<td>12</td>
<td>Ninbo</td>
<td>East</td>
<td>Coastal city</td>
<td>5,640</td>
</tr>
<tr>
<td>13</td>
<td>Wuhan</td>
<td>Middle</td>
<td>Capital city of province</td>
<td>8,280</td>
</tr>
<tr>
<td>14</td>
<td>Chengdu</td>
<td>South West</td>
<td>Capital city of province</td>
<td>12,570</td>
</tr>
<tr>
<td>15</td>
<td>Dalian</td>
<td>North</td>
<td>Coastal city</td>
<td>6,080</td>
</tr>
<tr>
<td>16</td>
<td>Shenyang</td>
<td>North</td>
<td>Capital city of province</td>
<td>7,620</td>
</tr>
<tr>
<td>17</td>
<td>Nanjing</td>
<td>East</td>
<td>Capital city of province</td>
<td>7,410</td>
</tr>
<tr>
<td>18</td>
<td>Dongguan</td>
<td>South</td>
<td>With heavy foreign investment</td>
<td>6,940</td>
</tr>
<tr>
<td>19</td>
<td>Tangshan</td>
<td>North</td>
<td></td>
<td>7,240</td>
</tr>
<tr>
<td>20</td>
<td>Yantai</td>
<td>North</td>
<td>Coastal city</td>
<td>6,510</td>
</tr>
</tbody>
</table>
Where are the top 20 cities
Building your distribution team
Recruiting the right salespeople

- Where: Top cities
- Sales manager
- Sales supervisor
- Sales representative
Finding the Right Distributors in China
How do you find the right distributor for medical devices

- A book (CD room disc) with listing 4089 medical device distributors
  - Official name: 医疗器械代理企业名单数据样本

- Information provided

<table>
<thead>
<tr>
<th>Name</th>
<th>Registration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal person</td>
<td></td>
</tr>
<tr>
<td>Connecting person</td>
<td></td>
</tr>
<tr>
<td>Registered capital</td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td></td>
</tr>
<tr>
<td>Economic type: Ltd.co</td>
<td></td>
</tr>
<tr>
<td>Main product</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Telephone</th>
<th>Fax.</th>
</tr>
</thead>
</table>
How do you find the right distributor
Medical device (cont.)

- There are no accurate numbers for the number of medical device distributors nationwide
- Almost all medical device distributors are privately owned
- There are one or two directories listing medical device distributors
How do you find the right distributor for drugs

- A book (CD-rom disc) has a listing of 380,000 drug distributors:
  - 2008-2009 医药代理商名单分享合作
- The same information provided as that of device distributors (slide 4), such as name, legal person, etc.
- The 380,000 distributors are in big and middle-sized cities
How do you find the right distributor
How can you determine if they are legal

- Check their license with local AIC (Administration of Industry & Commercial)
- Registration code and expiration date
How do you find the right distributor
How can you determine if they are good

Do distributor investigation

- Medical device/ Prescription drug
  - Sales revenue of investigation
  - Geographic coverage
  - Sales team: size and professionalism – how can you check this

- OTC
  - Sales revenue of distributor
  - Geographic coverage
  - Sales team: size and professionalism
What are the Medical Distribution Channels

- Hospital
- Pharmacy
Medical Distribution Channel - Hospital

- Hospitals + Clinics = 315,000 facilities

- 60,000 hospitals nationwide
  - Up to 90% hospitals are state owned
  - 819 class 3 hospitals

- Chindex International, Inc. opened its flagship Beijing United Family Hospital in 1997, which was the first foreign-invested hospital in the PRC; the 50-bed hospital provides a full range of international-standard health care services.

- Joint venture between Chindex International, Inc. and Shanghai Changning Central District Hospital.

- In addition to the two hospitals, Chindex International, Inc. also runs affiliated freestanding clinics in Beijing and Shanghai.
Medical distribution channel - Hospital

Hospital Classification

- Class 3
- Class 2
- Class 1
Medical distribution channel - Hospital

Hospital Structure

Director of hospital

Clinical departments

Medical Engineering dept.

Drug purchasing dept.

Disposable dept.  Equipment dept.
Medical Distribution Channel - Hospital

Medical device product classification

- Class 3 – Implants
- Class 2 – Controlled use, where effectiveness and safety should be controlled
- Class 1 – Common
Medical device product registration

<table>
<thead>
<tr>
<th>State SFDA</th>
<th>Provincial SFDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical device</td>
<td>Medical device</td>
</tr>
<tr>
<td>Class 3- High value device product</td>
<td>Class 3- Low value device product</td>
</tr>
<tr>
<td>All drugs</td>
<td>Class 2</td>
</tr>
<tr>
<td></td>
<td>Class 1</td>
</tr>
<tr>
<td></td>
<td>Nutrition product</td>
</tr>
</tbody>
</table>
Medical distribution channel-Hospital
- Purchasing decision

Drug
- Drug Purchasing department decide the sell-in volume and payment

Device
- Disposable dept decide the sell-in volume and payment
Medical distribution channel-Hospital

-How MULTINATIONAL pharmaceutical companies operate hospital business

Sales team activities to pull prescription sales

- Multi-national/big domestic companies
  - Clinical department talk meeting to introduce new product and discuss the key factors of the product with 5-8 doctors from one target department
  - Seminar to introduce new product and communicate the product knowledge to doctors from target departments from several hospitals
Medical distribution channel-Hospital

-How DOMESTIC Chinese pharmaceutical companies operate hospital business

Sales team activities to pull prescription sales

- Small local companies
  - Just give distributor high margin to cover cash kick backs to doctors who prescribe the product (up to 30-50%)
Medical Distribution Channel-Hospital -Kick-backs

- Multi-national /big domestic companies
  - No kick backs but activities and sponsorship

- Small domestic companies
  - Kick back to doctors who prescribe the product without educational activities
Medical Distribution Channel-Pharmacy

-Pharmacy types

Pharmacy marks: Green cross as shown below

Pharmacy types
- Chain store
- Individual store

Clinic marks: Red cross
Medical Distribution Channel-Pharmacy
- How many pharmacies nationwide

According to China Business Association

- 320,000 pharmacies nationwide
- About 50% pharmacies in large capital cities of provinces are chain stores
Medical distribution channel - Pharmacy
- Product display in store

- GSP regulation (about 100 clauses)
- Display by category
  - Drug
  - OTC
  - Device
  - Nutrition
- Open shelf and traditional counter selling
Medical distribution channel - Pharmacy - Purchasing decision

**Chain store**
- Purchasing department of chain store decides the purchasing volume

**Individual store**
- Store manager decides the purchasing volume and payment timeframe, such as 30 days or 60 days etc.

**Listing fee**
- Have to pay listing fee for entering product into pharmacy (RMB 100-200 per SKU; $15~$30)
Medical Distribution Channel - Pharmacy
- How multinational pharmaceutical companies operate pharmacy business

Customer

Annual agreement with top key big chains
Quarterly program: Display (product on shelf), recommendation program

Shop assistant

- training program that manufacturer sales team does to increase recommendation of their product
Medical Distribution Channel- Pharmacy -Kick-backs

Multi-national /big domestic company

- Focus on store activities as described on previous slide

Small domestic company

- 10-20% cash kick backs to store manager and shop assistant
Drug Channel Distribution in China Market
China Drug Channel Distribution
Multinational Pharmaceutical Company

Pharmaceutical Company (XJP/SJJP/Glaxo Smith Kline)

Select main distributors in class 1-2 cities

Direct distributors in 1-2 class cities sub-distribute to class 2-3 cities
* Rely on distributor’s network
* Indirect distributor loyalty contract to firm the relationship

Naturally covered by distributors in different level of cities without sales service/marketing support

No multinational company touched this area but all have done investigation
* Price

Rural area

# city

34 → Class 1
24 → Class 2
92 → Class 3
104 → Class 4
410 → Class 5
TTL 666
China Drug Channel Distribution- Local Pharmaceutical Company

Local Company (Sanjiu, YNBY, Huabei pharmaceutical)

Local companies directly sell to distributors in class 1-3 cities with:
* Bad price stability

Mainly rely on distributor’s net work to sub-distribute to low level cities

Naturally covered by distributors in different level of cities (also by open market before 2001) without sales service/marketing support

Some local companies tried under government direction
* Cash business
* Van business with regular frequency

Rural area
Differences in selling drugs/devices/OTC products including pricing
Multi Level OTC Distribution System

1st tier Distributor

2nd tier Distributor

Wholesalers

Drugstore

Hospital

Consumer
How do Drug/OTC mark-ups work
Pharmacy channel

115  Suggested retail price

100  Wholesale price

Discount price to pharmacy

Margin for pharmacy
There is a range

Discount price to distributor

Margin for distributor
There is a range
How do Drug/OTC mark-ups work
Pharmacy channel – One real case

115  Suggested retail price
100  Wholesale price
  92  On shelf price to consumer
  85  Distributor to pharmacy

Margin for pharmacy
  8%

Margin for distributor
  12%

76  Discount price to distributor
Drug Distribution System

1st tier Distributor

2nd tier Distributor

Drugstore

Over 80%

Hospital

Consumer
How do Drug/OTC mark-ups work
Hospital channel

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested retail price</td>
<td>115</td>
<td>Hospital sell out price (bidding)</td>
</tr>
<tr>
<td>Wholesale price</td>
<td>100</td>
<td>Discount price to Hospital (bidding)</td>
</tr>
<tr>
<td>Discount price to distributor</td>
<td>≈75</td>
<td></td>
</tr>
</tbody>
</table>

Margin for hospital
Margin for distributor
How do Drug/OTC mark-ups work

Hospital channel – One real case

<table>
<thead>
<tr>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>Suggested retail price</td>
</tr>
<tr>
<td>100</td>
<td>Wholesale price</td>
</tr>
<tr>
<td>97</td>
<td>Hospital sell out price (bidding)</td>
</tr>
<tr>
<td>84</td>
<td>Discount price to Hospital (bidding)</td>
</tr>
<tr>
<td>76</td>
<td>Discount price to distributor</td>
</tr>
</tbody>
</table>

- **Margin for hospital**: 15% (B/P* + 15%)
- **Margin for distributor**: 10.5%
How do Drug/OTC mark-ups work
Hospital channel – One real case (cont.)

84  Discount price to Hospital (bidding)

76  Discount price to distributor

Big pharmaceutical company
About 10-15% of sales and market spending on increasing number of doctors issuing prescriptions of drug

Small domestic pharmaceutical company
Discount to distributor goes to about 80% and the big margin covers all distributor and hospital spending

Margin for distributor
10.5%

Delivery service
A/R (Account receivable)
Stock
Device Distribution System

Distributor

Hospital

Consumer
How do Device mark-ups work

Hospital channel – Low value device product

Hospital sell out price

Suggested retail price bidding

Price to Hospital

Price to dedicated distributor

The suggested retail price should be officially approved by SFDA
# How does Device mark-ups work

**Hospital channel – Low value disposable product**

<table>
<thead>
<tr>
<th></th>
<th>Price to patient</th>
<th>Suggested retail price (bidding)</th>
<th>Price to hospital</th>
<th>Price to distributor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospital margin</strong></td>
<td>Bidding x 20%</td>
<td>For price &lt; RMB 2000</td>
<td>Bidding price x 95%</td>
<td>Domestic: Bidding price x (30-50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For price &gt; RMB 2000</td>
<td></td>
<td>Import: Bidding price x (60-70%)</td>
</tr>
<tr>
<td><strong>Distributor margin</strong></td>
<td>Bidding X25%-65%</td>
<td></td>
<td></td>
<td>Domestic: Bidding price x (30-50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Import: Bidding price x (60-70%)</td>
</tr>
<tr>
<td><strong>Distributor margin</strong></td>
<td>Bidding x 25%-65%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How does Device mark-ups work

Hospital channel – High value disposable product

<table>
<thead>
<tr>
<th></th>
<th>Bidding +RMB 200</th>
<th>Bidding +RMB 500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price to patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggested retail price</td>
<td>RMB 2,000 - 20,000</td>
<td>RMB 20,000 - 50,000</td>
</tr>
<tr>
<td><strong>Price to hospital</strong></td>
<td>= Bidding price</td>
<td>= Bidding price</td>
</tr>
<tr>
<td><strong>Price to distributor</strong></td>
<td>Domino: Bidding price X(30-50%)</td>
<td>Domino: Bidding price X(30-50%)</td>
</tr>
<tr>
<td></td>
<td>Import: Bidding price X(60-70%)</td>
<td>Import: Bidding price X(60-70%)</td>
</tr>
<tr>
<td><strong>Hospital margin</strong></td>
<td>RMB 200 plus treating fee</td>
<td>RMB 500 plus treating fee</td>
</tr>
<tr>
<td><strong>Distributor margin</strong></td>
<td>Bidding x (30%-70%)</td>
<td>Bidding x (30%-70%)</td>
</tr>
</tbody>
</table>
How does Device mark-ups work

Hospital channel

- Price to Hospital
- Price to dedicated distributor
- Margin for dedicated distributor
- 25%-65% of B/P

Still high margin, that is the reason why all medical device distributors are privately owned

- 20% kick backs base on hospital sell in price to doctors
- 10% kick backs base on hospital sell in price to disposable depart
- Hospital A/R >= 6 months
- Stock in hospital and distributor depot
- Listing & Bidding
- Sales team
Listing/Bidding Reimbursement
How to Sell Drugs/Devices into Hospitals
- Listing / Bidding/ Reimbursement

The relationship of these three key factors (continued on next slide)

- Listing – First step is to sell the product into the hospital
- Bidding – If you fail on bidding, the product will be out of the hospital
The relationship of these three key factors (cont.)

- Drug reimbursement
  - If the product is delisted from a provincial medical insurance drug list, the product will be moved out of the hospital or moved to self-pay list
  - Sales will go down dramatically
How to sell drug/device into hospital
- Listing / Bidding/ Reimbursement

The relationship of these three key factors (cont.)

- Device reimbursement
  - If the product is delisted from state medical insurance device list, product could still be used in hospital but is self-pay
How to sell drug/device into hospital
- Listing / Bidding / Reimbursement

Reimbursement budget control

- Provincial Medical Insurance Bureau gives an annual budget to every hospital for reimbursement. If the hospital goes over their budget then the individual hospital will pay without government help.
How to sell drug/device into hospital
- Listing procedure

Pharmaceutical companies
Build relationship with directors of hospitals and members for their raising product and voting to be listed

Clinical departments
- Build relationship with department head/KOL
- Sponsor professional activities
Department head/KOL will explain advantages of the product based on their knowledge and expertise.

Pharmaceutical Affairs Committee
The time frame for listing approval could be 3 months to 3 years
How Does Bidding Work – Drug Most Provinces

A state owned bidding platform (Haihong) to conduct bidding

Pharmaceutical company authorizes dedicated distributor and then discusses with them on bidding price and to claim this price

Haihong compares the historical bidding price among provinces and gives out the bidding price, which will never be higher than the highest bidding price in the system

All bidding prices announced online/book

New prices updated in hospital system before effective date
How Does the Bidding Work – Drug (cont.)
Some Key Cities Like Shanghai/Beijing

Local pricing bureau/Public health bureau/Bidding committee discuss/decide bidding policy

Pharmaceutical company

Sales team meets with members of the bidding committee for support on your claimed bidding price

Authorize dedicated distributor and discuss with them on desired bidding price and to claim this price on bidding system online

All bidding prices announced online/book

New prices updated in hospital system before effective date
How does Bidding work – Drug (Cont.)

- Bidding policies are different depending on province
- In recent years, the trend is to reduce both the hospital purchasing price and the retail price to the patient
- In some key cities like Shanghai/Beijing not using Haihong bidding platform, the bidding committee is formed by some clinical department heads and drug purchasing department heads from key hospitals in capital cities and other big cities
Events in China pharmaceutical industry

- 《Essential Drug List（for using in primary health care sector)》(2009 Edition）was announced by Health Ministry and became effective from September 21, 2009
- 307 drugs:
How does Bidding work – device

- Low value device
- High value device
- Bidding by product category
- Usually two bidding products under one category, one is cheap for domestic product and another is expensive for import product
Bidding - The best strategy to win

- You should complete listing of the product in bidding lists first
  - You have to register your product into every hospital where you want to sell in. This is called listing. You usually do this together with bidding in many cities

- Build and maintain the relationship with Haihong and Bidding Committee to support your desired price

- If you are going to authorize your distributor to claim/apply for the bidding price, distributor should dedicate one of their staff to be responsible specifically for your case.
Bidding – Pitfalls to Avoid

- Your distributor asks for high listing fee and many samples for listing with listing plan but did not get listed into target hospitals
  - Listing fee is similar to a kind of entertainment fee used for building relationship with committee members
  - Listing cost is very high with no official listing fee invoice from hospital
  - Finally you are told that they are still waiting for the committee approval. Actually the distributor did not do their job but simply spent your listing fee
  - You may receive a report that the product has been listed into many hospitals but sales are not so good
How does reimbursement system work

- State “Medical Insurance drug/device list” is updated every two years (actually 3 years from start to effective date)
- Provincial “Medical Insurance drug/device list” updating start after state list announced
  - For example, for drugs:
    - Provincial 《Basic Medical Insurance Drug List》 (2009 Edition) will be announced before March 31, 2010
      - Number of drugs
    - Percentage of reimbursement
    - The 《State Basic Medical Insurance Drug List》 (2009 Edition) was announced by Ministry of Human Resource and Social Security on November 30, 2009
      - 2,151 drugs; 13.7% increase vs 2004 Edition
      - Class A drug : 503 with 100% reimbursement, effective from December 2009 nationwide
      - All 307 drugs in 《Essential Drug List》 are Class A drugs
      - Rest are all Class B drugs
How does reimbursement system work (cont.)

- Drug
  - 15% adjustment made by province base on state list
  - Chance to add into provincial list if not in state list
- Device reimbursement
  - State health ministry issue out the list of reimbursement device product
How does reimbursement system work (cont.)

- To win the state reimbursement drug list
  - Have dedicated PR people to build relationship with Medical Insurance dept. under State Ministry of Human Resource and Social Security
  - Build relationship with key doctors who may attend the discussion/voting
How to Sell Drug/Device into Hospital - Reimbursement (cont.)

- To win the provincial Reimbursement drug list
  - Have dedicated PR/sales people to build up the relationship with Medical Insurance department under provincial Bureau of Labor
  - Build relationship with key doctors who may participate in the discussion/voting
How does reimbursement system work (cont.)

- **Device**
  - Device company do not want their import product to be listed into State reimbursement list to avoid price reduction
  - Some domestic device companies prefer to be listed into reimbursement list for more sales
Thank you for your consideration!

Pacific Bridge Medical
www.pacificbridgemedical.com
contact@pacificbridgemedical.com

Thank you for viewing our China Distribution System – Drug/OTC/Device Presentation.
To view more free resources, please visit our Resource Center at www.pacificbridgemedical.com/resource-center/