What is a Medical Science Liaison (MSL)?

1st Generation Medical Science Liaisons

MSL Roles & Responsibilities

- MSL is a medical representative in the field for Wyeth.
- Provide fair-balanced scientific clinical information, including full scientific data on products in response to unsolicited requests.
A Typical MSL Question

"You probably shouldn't mix your vitamins with your protocol."

MSLs educate pharmacists on XR dosage forms

"It's time released, sir. Once you get it swallowed it's good for a whole year!"

MSL Profile Example

- USC School of Pharmacy
  - Doctor of Pharmacy (Pharm.D.)
- Post Doctoral Residency
  - Primary Care / Ambulatory Medicine
- UCLA - Santa Monica Medical Center
  - Director of Pharmacology Education and Research & Assistant Clinical Professor of Medicine
  - Research - Internal Medicine & Primary Care, Journal Club
  - P&T Committee
  - Resident Education - Pharmacology
  - Patient Care - Inpatient Medicine Rounds & Outpatient Clinic
General MSL Characteristics

- Apply the science
- Responsive to inquiries
- Prepare Medical Community for new therapies
- Educate
- Support research
- Develop relationships-internal and external colleagues
- Facilitate the acceptance and understanding of Wyeth-Ayerst products and assure their optimum use

Pharmaceutical Representative

The Untold Story........

Sales...
The world’s oldest profession
What people used to say about Pharmaceutical Representatives:

- “Oh no... not him again...I don’t have the time”
- “He would have made a great used car salesman”
- “I can’t remember what he said about this product but this pen is really cool”
Representative role is to provide value for the customer:
- Product education - fair balance/ethical
- Address contract/pricing issues
- Serve as a liaison to home office departments: medical affairs, product quality, product marketing, clinical studies...
- Meet customer needs: speakers, grants, co-promotion....

Office Based Representatives
- Works in private practice setting with MDs and RNs.
- Calls on chain and or independent pharmacies.
- The majority of pharmaceutical representatives are in office based roles.

Medical Center Representatives
- Works in hospital/academic medical center environment.
- Audience: MD, residents, pharmacists, RN...
- Key responsibility: to identify and develop academic thought leaders.
Representative Benefits

• Reward-recognition for individual achievement.
• The “master of your own destiny”- strategy, time allocation, priority...
• Customer relationships

Representative Benefits

• Guaranteed Salary
• Bonus plan - matched to performance
• Stock Options
• Car / Insurance / Gas
• 401 K
• Medical / Dental coverage

Representative Challenges

• Customers with different points of view.
• Travel
• Relocation?
• Good bye to the 40 hour work week...
Representative opportunities:

- Multiple career options - home office, sales management, training...
- Multiple company options: Wyeth, Ayerst, Robins, Lederle, Genetics Institute...
- The pharmacy degree is a tremendous asset in the pharmaceutical industry.

Mark Shigihara
Managed Care Area Account Manager

- Job responsibility
- Work responsibilities and impact on pharmacists.
- Real life questions/quiz

Managed Care Environment

“Actually, there was plenty of room, but this was all our HMO would cover.”
Managed Care RAM

- Work with managed care health plans - Premera Blue Cross, Group Health, PacifiCare, Kaiser,…
- Offer product information to accounts - influence formulary/reimbursement position of products.
- Co promote - initiatives with customers

Reimbursement Role

Real Life Quiz

What causes the most complaints from patients regarding their prescriptions?

A) Your typing speed on labels
B) You can not decode the prescriber handwriting and fill the Viagra prescription with Valium.
C) The COST of pharmaceuticals
COST

Putting it into perspective

Drugs as % of US Healthcare Costs

Source: HCFA, National Center for Health Statistics

Contributors to the 18.8% Increase in Rx Spending in 1999

New Medicines 3.8%
Increased Utilization 10.8%
Price Inflation 3.8%

Source: IMS Health
But what about other countries…..
Pharmaceutical products cost less there…..

Mc Answer

Many Costs Are Lower in Canada

From Higher Education...
U.S. (Undergraduate Tuition, Books, Room and Board)
One Year: $32,000
…to Fast Food
$2.43

Canada (Undergraduate Tuition, Books, Room and Board, Student Services)
One Year: $12,566
$1.98

Source: Published University Data, 2000
International Price Variation
McDonald’s Big Mac
(U.S. Dollars, 1999)

Source: Economist, April 3, 1999

Approximate Hours of Work Needed
to Buy 1-Specific Rx
(50 mg, 30 tablets)

Source: Data on File, Pfizer, Inc and World Fact Book

COSTS
What about some detailed
United States perspective.....
COSTS

But what about pharmaceutical companies…

Are they just trying to price gouge the customer….
**Research-based Pharmaceutical Companies**

**Industrial Sector Comparisons:**

- Drugs and Medicine: 20.8%
- Office Equipment and Services: 12.0%
- Electrical and Electronics: 7.6%
- Telecommunications: 6.0%
- Leisure Time Products: 5.1%
- Aerospace and Defense: 4.9%
- Metals and Mining: 4.1%
- Paper and Forest Products: 3.7%
- All Industries, Excluding Drugs and Medicine: 3.7%

*“Research-based Pharmaceutical Companies” Based on Ethical Pharmaceutical Sales and Ethical Pharmaceuticals R&D Only as Tabulated by PhRMA; “Drugs and Medicine” Sector as Tabulated by Standard & Poor’s Compustat, a Division of McGraw-Hill*

Source: PhRMA, 1999, Based on Data From PhRMA Annual Survey and Standard & Poor’s Compustat, a Division of McGraw-Hill

### Compound Success Rates: 1 in 10,000 Reach FDA Approval

- **Discovery** (25–10 Years)
- Pharamaceutical Testing
- Preclinical Testing
  - Laboratory and Animal Testing
- Phase I
  - 100–300 Patient Volunteers
  - Used to Look for Efficacy and Side Effects
- Phase II
  - 1,000–5,000 Patient Volunteers
  - Used to Monitor Adverse Reactions to Long-term Use
- FDA Review
- Additional Postmarketing Testing

Source: PhRMA, Based on Data From the Tufts Center for the Study of Drug Development, 1995

### Pharmaceutical Industry Facts

- Revenues from approved drugs (1 of 5 to 10,000) must cover the “dry holes” of non-approved compounds.
- Average cost of bringing a drug to market is 500 to 800 million dollars.
- Average approval time is 12 to 15 years.
- Time to recoup investment is shrinking—generic drugs and limited patent life
COST Perspective

What is the cost if pharmaceutical manufacturers did not create revolutionary drugs……..

COST of Uncured Disease States

And this does not even take into consideration… patient quality of life
MSL or AAM

- Consider signing up for our rotation.
- In depth exposure to our positions.
- Advantages
- Disadvantages
- Answers the question – “Is the pharmaceutical industry a viable career option for me?”

Questions?