

Overcoming Price Pressures on Medical Devices

Medical device manufacturers (MDMs) are facing new and dynamic marketing, regulatory, and economic factors that are putting pressure on medical device prices. Historically, MDMs have comfortably commanded significant price premiums on many of their devices. However, current and future environments appear to pose a significant challenge to maintaining those price premiums.

More stringent regulation, taxation (excise tax), increased competition, a weakened economy, and product commoditization and their combined effects on medical device pricing are analyzed in this edition of the Minute. Furthermore, we also consider strategies that MDMs can employ to maintain price premiums and ultimately grow profits in their respective markets.

Market Overview: Growth and Consolidation of Orthopedics

Growth Segments:

| Market Segment | Drivers | Corporate Beneficiaries | 2yr Growth Forecast |
|-----------------|---|--|---------------------|
| Spine | Disc replacement and other non-fusion products | Globus Medical, LDR Spine, NuVasive, SpinalMotion | 4-6% |
| Orthobiologics | Bone graft substitutes, products utilizing stem cell capabilities | Medtronic, BioMimetic Therapeutics, NuVasive, Orthofix, AlloSource | 6-9% |
| Extremities | Shoulder and ankle products | Arthrex, J&J (DePuy & Synthes), Smith & Nephew, Stryker, Zimmer, Small Bone Innovations, Tornier | 8-10% |
| Sports Medicine | Driven by international growth | Arthrex, Smith & Nephew, Arthrocare | 7-9% |

Market Trends:

- The \$32B worldwide orthopedic market has slowed due to pricing pressures and reduced recessionary demand for elective procedures.
- Regulatory policies, particularly at the FDA, are slowing the introduction of new innovation.
- While hip/knee reconstruction and spinal procedures represent 55% of this market, growth is slow at 3% and 4-6% annually.
- Smaller segments of the market, including sports medicine and extremities, are experiencing more growth, at 7-10%. Non-fusion spine procedures (artificial discs) and extremities are forecasted to generate the greatest growth in the near future.

Market Dominance:

- Market leaders continue to be the big three with Zimmer, Depuy (J&J), and Stryker commanding 70% of the overall orthopedic market.
- If a merger involving Smith+Nephew and Biomet were to materialize, this could expand to a big 4 by combining the number 4 and 5 players into another large \$6.8B firm.

Sources:

- 1.) <http://www.acgchicago.com/UserFiles/file/chicago/Web%20docs/HCare%202011%20Orthopedic%20H-Care.pdf>
- 2.) <http://www.pcb007.com/pages/zone.cgi?a=57579>
- 3.) <http://www.surfacehippy.info/orthopedicdevicefuture09.php>
- 4.) <http://orthostreams.com>
- 5.) <http://blogs.wsj.com/marketbeat/2011/01/10/smith-nephew-shares-jump-after-ji-bid-reports/>

CASE STUDY: Pricing an Innovative Medical Device

- **The Company:** A venture-based firm was in the final stages of obtaining FDA approval for its patented innovative vein treatment procedure.
- **The Challenge:** To determine the optimal price that should be set for this new procedure to maximize profits and market penetration.
- **Our Solution:** TMTG first segmented the customer population, recognizing the conflict between surgeons and non-surgeons, and identified the key attributes influencing doctors' and patients' decision to seek vein treatment. Working with a national pricing expert, TMTG developed and conducted a conjoint survey that was used to help determine the optimal price.
- **The Impact:** Results directed market segmentation and pricing. The analysis outlined potential outcomes of several different pricing strategies and refined the company's sales approach.

http://www.themarketechgroup.com/doc/device_diagnostics/casestudy_17.pdf



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Cary Adams, founder of ProXimal Ventures, a medical device and technology companies investment firm.

Q: As a medical device company investor, do you continue to be optimistic and do you believe medical technology companies can overcome current pricing pressures?

A: I consider myself a realist. You are absolutely correct that we are facing a different world today and that new technologies are facing new challenges that they didn't face in the past. If you think about how prices are set in competitive markets, where buyers contend with sellers with directly conflicting economic interests and arrive at a mutually agreeable price — that model breaks down in healthcare at several places. Medical device companies must convince clinicians that a new device is superior. They must contend with the hospital purchasing committee and Group Purchasing Organizations to negotiate the final price that will be paid by the hospital. At the same time, the manufacturer needs to realize that payors are increasingly active in reviewing what gets paid for.

Q: How real is the threat of low-cost overseas suppliers, or is this an opportunity for U.S. companies to reduce their own costs while leveraging their strong brand reputation?

A: The big players are all global, so overseas manufacturing is already a reality, although there are some predictions that some of that will be repatriated. When new products come to the U.S., they are brought here by well-established, large medical device companies, not from questionable low-cost manufacturers. It's faster and cheaper to develop new products in Europe, so people serious about pursuing those innovations are moving their operations, clinical trials and regulatory approvals to Europe. Once the product is approved in Europe and sufficient clinical data is developed to introduce to the U.S., that's when the products will come here.

Q: What do you see in your crystal ball for the future of product pricing of medical technologies in the U.S. for the next 5 years?

A: The big trends likely to continue are Europe and Asia as the innovation hubs. I would personally like to see U.S. regulatory agencies and policymakers measure the opportunity cost from "lost" innovation here in the U.S. The press and FDA overvalue negative outcomes but undervalue the cost of lost or delayed innovation. If we don't receive new technologies in the U.S. until 1-3 years after they are introduced in Europe, we can start to assign costs to our patients here who miss out on that care. There's a growing number of breakthrough products being approved overseas many months even years before they're approved here and I would like to see people start measuring and talking about those costs. It's a much bigger cost than people understand and should be part of the equation.

For more information about ProXimal, please visit <http://www.proximalventures.com>

Long version of this interview: <http://www.themarketechgroup.com/doc/minutes/tmtg-min30-Adams.pdf>

ON THE HORIZON: Future of Medical Technology Companies

HIGHLIGHTS

- The medical device excise tax, which requires device manufacturers to pay 2.3 percent of their gross U.S. revenues on devices sold, goes into effect in 2013.
- Although The Transparency in Medical Device Pricing Act of 2007 never went to a vote, new calls from healthcare providers and politicians could require medical device companies to publish product sales prices for implantable devices.
- Numerous medical device companies have recently announced significant layoffs in an effort to reduce costs.

AT STAKE!

- Investors, employees and corporations are likely to feel continued pressures as the medical device industry faces an uncertain and a potentially less favorable environment in the U.S.

SO WHAT?

- Medical device manufacturers may continue to accelerate layoffs and transform their business models to counter the new excise tax, future pricing pressures, and a tougher regulatory climate.
- If price transparency of medical devices is enacted, MDMs will lose their price information asymmetry advantage and will likely see increased pricing competition while more power shifts into the hands of the buyer.
- Recent trends of consolidation in many areas of the medical device industry will continue as a means for established MDMs to increase control in pricing power by acquiring competing brands to fuel new product pipelines.

Sources:

- 1.) http://www.strathealth.com/images/pdf/Reaven_JMDRNov06.pdf
- 2.) <http://www.berkeleyhealthtech.org/docs/Device-Prices-Transparency-Report.pdf>
- 3.) <http://www.reuters.com/article/2009/11/12/us-summit-devices-idUSTRE5AA3E720091112>
- 4.) <http://www.reuters.com/article/2010/09/13/medtronic-idUSN1319220920100913>
- 5.) <http://www.mddonline.com/articles/cost-pressure-cooker>

THE ASSOCIATE CORNER: The Price is Right – Overcoming Shortcomings in Pricing Research

Brand and Pricing Managers have begun to rely on both economic value methodologies and statistically based marketing research to build models that forecast how customer choice depends on price.

One such survey-based methodology, conjoint analysis, has become widely used to measure the relative importance of different attributes relative to the importance of price. This data can be used to develop preference models that help predict which product configurations are most preferred and the price sensitivity of specific market segments to certain product features.

However one shortcoming with preference models like conjoint analysis – they don't always correspond to what is observed in the actual market place. There are several reasons why such a disparity exists:

1. Purchasing decisions are influenced by factors that are not readily measurable in a conjoint analysis such as advertising, personal interactions with a company's sales force or customer support team, the influence of resellers, etc.
2. Not all customers will be able to choose from the same sets of products at the same prices due to vendor selection, contractual agreements, or simply the lack of awareness of some alternatives.
3. There may be discrepancies between an objective measure of a product's features and customer perceptions.
4. Customer decision processes may differ from the decision processes required when selecting between fixed product scenarios offered to them in a conjoint analysis.

To overcome these shortcomings, a more sophisticated demand model that leverages conjoint analysis preference data should be utilized by firms seeking more accurate pricing and adoption forecasts.

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