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Fremont, CA

Sample Case Study : Market Model Development and Forecasting

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Problem Statement

- Our client, one of the leading players in the Neuro Critical Care (NCC) space, wanted to acquire an understanding of the different conditions leading to increase in intracranial pressure (ICP), procedural penetration of ICP monitoring, and procedural mix of various ICP monitoring modalities
- The client also wanted to quantify the ICP monitoring market and compare leading treatment modalities and their future growth prospects
- The client wanted to evaluate the impact of various scenarios which could effect the growth of the market

Orbees Approach

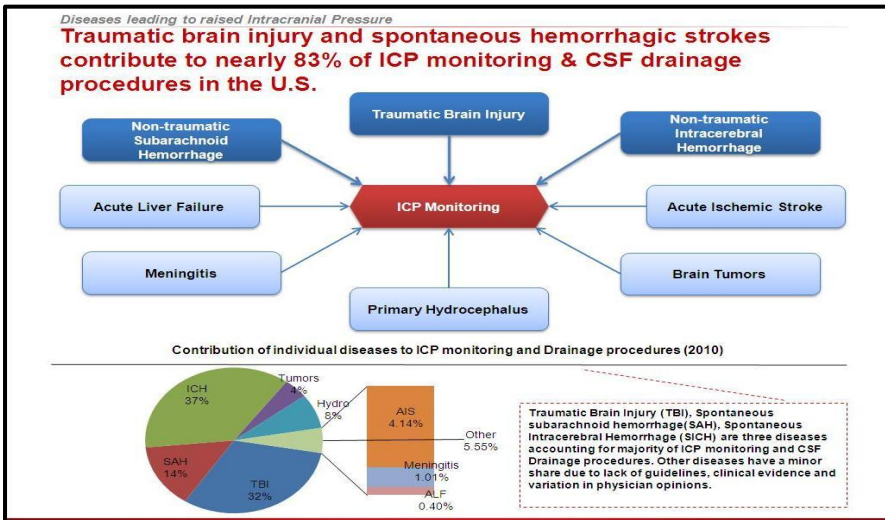
- Orbees conducted an in-depth literature/ clinical database search to understand the treatment paradigm of individual conditions, indications for ICP monitoring, adoption trends and penetration of ICP monitoring
- The inputs from the above exercise were incorporated into the US Market Model to forecast the NCC market through 2017. The model captured various product segments (Capital equipment, disposables etc.) for each treatment modality. Orbees forecasted the market shares of various players in each product segment
- Orbees developed a scenario analysis template which aids in quantifying various plausible future scenarios and their effect on the client's sales dollars
- Additional analysis in terms of Tornado charts and Simulations were provided which helped the client understand key growth drivers of the market

Outcomes

- The project helped the client in understanding the individual conditions and their contribution to the overall ICP market.
- The robust market model which was built with a strong clinical base coupled with authentic financial data gained immediate acceptance among the client personnel and helped them in devising the Strategy Plan.
- The scenario analysis captured the quantitative impact of various future cases and helped client in understanding the key product lines to promote in the future.

Orbees Deliverables

Categorization of the entire ICP monitoring landscape into six independent disease segments



NCC Market Forecast providing growth rate of various segments of the market and share of various companies

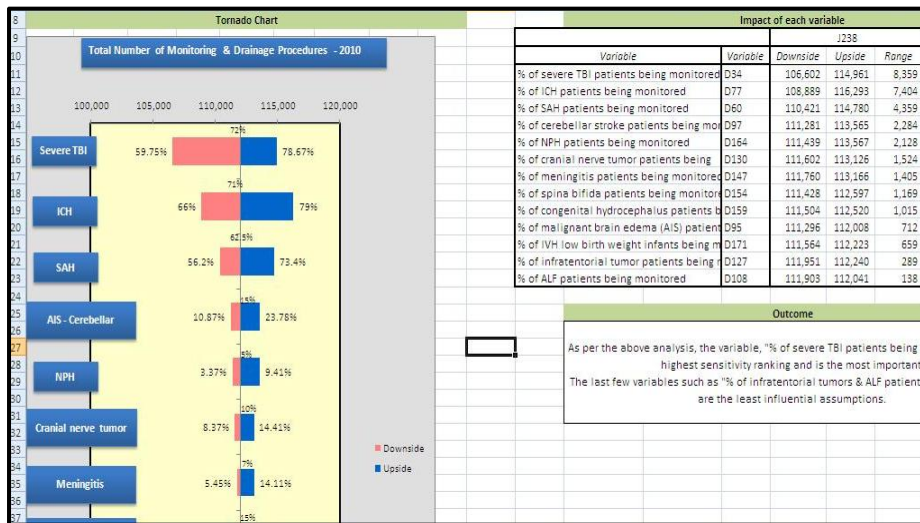
Neurocritical Care U.S. Market Model

Country: U.S.
 Local Currency Name: US\$
 Forecast created by: Orbees Medical
 Forecast Date: 12/08/10

Assumption/Source: Reference/assumption with substantial basis, Assumption with less substantiation

	2008	2009	2010	2011	2012
Market Value (in 1000s)					
- ICP Monitors					
- ICP Electronic sensors	\$ 22,994	\$ 23,937	\$ 26,317	\$ 27,977	\$ 29,881
ICP Monitoring Disposables market	\$ 22,994	\$ 23,937	\$ 26,317	\$ 27,977	\$ 29,881
Revenues - ICP Monitoring Disposables	\$ 5,621	\$ 5,880	\$ 6,370	\$ 6,583	\$ 6,991
EVD Disposables Market					
- Ventricular catheters	\$ 30,658	\$ 43,258	\$ 48,708	\$ 53,192	\$ 58,238
- External Drainage systems	\$ 13,558	\$ 15,250	\$ 17,791	\$ 19,934	\$ 22,429
- Drainage Bags	\$ 10,360	\$ 12,427	\$ 14,095	\$ 15,140	\$ 16,293
- Cranial Access Kits	\$ 2,745	\$ 2,968	\$ 3,173	\$ 3,403	\$ 3,644
Revenues - EVD Disposables & Cranial Access Kits	\$ 11,396	\$ 12,613	\$ 13,849	\$ 14,715	\$ 15,873
Total market value (in 1000s)	\$ 61,053	\$ 67,195	\$ 75,025	\$ 81,169	\$ 88,119
- Firm A's market value	32%	\$ 19,521	\$ 21,008	\$ 23,841	\$ 25,025
- Firm B's market value	56%	\$ 33,999	\$ 36,532	\$ 39,957	\$ 42,989
- Firm C's market value	12%	\$ 7,534	\$ 9,655	\$ 11,127	\$ 12,555

Tornado Charts identify the most significant variables which impact the NCC market



Neuro Critical Care (NCC) Market Intelligence

Recommendations

- Recommendations**
- Conducting a quick primary survey of neurosurgeons to understand current ICP monitoring and CSF drainage practices, neurosurgeon opinions and perceptions is highly recommended.
 - Conferences such as American Association of Neurological Surgeons meet or Neurocritical Care Society meet would provide an ideal platform to conduct the survey.
 - Obtaining Premier Procedural Co-occurrence data for different disease codes will further aid in understanding the association of ICP monitoring and CSF drainage procedures with individual disease conditions.
 - Assessing the impact of project XXX on the revenues of ICP monitors and disposables market.
 - Pricing analysis of antimicrobial catheters - Is Client's Product A underpriced compared to Competitor's Product B? Is there a significant difference in clinical value between the two products?
 - Feasibility and market opportunity to incorporate antimicrobial properties into Client's existing ICP ventricular catheter.

Key Questions unanswered

- Are small, community hospitals developing capabilities of monitoring and drainage? In which segment of hospitals (Large, teaching hospitals or small community hospitals) are the more procedures being performed?
- Breakup of total procedures between teaching, large non-teaching and small community hospitals.

Key Questions that require further validation

- Breakup of total procedures between ICU and OR. Preference of neurosurgeons towards ICU and OR while performing stand alone ICP monitoring Vs EVD.
- Penetration of monitoring and drainage into Spontaneous Intracerebral Hemorrhage and Subarachnoid Hemorrhage conditions.
- Impact of recently released AHA guidelines recommending the usage of ICP monitoring in ICH patients, and their influence on penetration rate.