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1.1 Current Market Situation

The neurovascular intervention market experienced dramatic changes in 2010. In June Covidien entered the market by acquiring ev3, the second leading player, for $2.6 billion, in July DePuy (Johnson & Johnson) acquired Micrus Endovascular for $480 million and moved to second place and in October Stryker acquired Boston Scientific’s neurovascular business unit for $1.5 billion and became the new leader in the market.

By the end of 2010, the global neurovascular intervention market was valued at $950 million, at manufacturer’s selling price. The market is estimated to have grown by 8% over its 2009 level. Over the past five years, the market has been growing at an average annual growth rate of 14% per year.
1.2 Device Category Segmentation

With global revenue reaching $450 million, embolic coils represented the largest single category of products and accounted for 47% of the market. However, growth rate has slowed down in this segment which is being challenged by the emerging hemodynamic aneurysm repair technology that flow diversion devices demonstrate.

Intracranial stents achieved global revenue of $130 million and accounted for 14% of the market. Stents have been growing at more than triple the rate of the overall market. Aneurysm stents, including flow diverting devices, accounted for two thirds of the revenue generated within this segment and ischemia stents accounted for the remaining one third.

If industry participants decide to add the $150 million per year carotid stents revenue to within the boundaries of the neurovascular space that would more than double the size of the stent segment and would propel the total market to beyond the $1 billion barrier.

Neurovascular thrombectomy devices accounted for 5% of the market and were growing at a healthy double digit pace and are expected to continue that pace as they penetrate further into international markets.

Liquid embolics accounted for another 5% of the market, however, this segment is now mature and will simply grow following the single digit increase in arterio-venous malformation incidence and demographics.

Access devices such as balloon catheters, remodeling balloons, guidewires and other support devices used during neurovascular intervention procedures accounted for the remaining 29% of the market.
1.3 Disease Area Segmentation

Neurovascular intervention currently addresses two major disease areas, broadly defined as hemorrhagic stroke and ischemic stroke.

The hemorrhagic stroke segment relates to preventing or stopping bleeding from either a cerebral aneurysm or an arteriovenous malformation (AVM). This is a more mature segment and currently accounts for 87% of the market. Endovascular cerebral aneurysm repair accounts for the main part of the hemorrhagic stroke market mainly attributed to embolic coils, aneurysm stents and flow diverting devices, remodeling balloons and other associated access devices as well as a tiny fragment of the liquid embolics market. AVMs account for 5% of the total market all attributed to liquid embolics and their access devices.

The ischemic stroke segment relates to preventing or curing an ischemic stroke. Although, industry participants constantly refer to the vast market potential that could be realized in applying endovascular technologies to this disease area, both technology and market are still in the early stages of their development.

Technologies addressing ischemic stroke can be classified along the lines of acute, clot retrieval or thrombus dissolution during an acute stroke attack, and chronic, angioplasty and stenting of narrowed cerebral arteries. Combined, this disease area currently accounts for 13% of the market.
1.4 Leading Companies Market Shares

Stryker assumed the lead position in the market by acquiring Boston Scientific neurovascular division in October 2010, transaction was finalized January 2011. Stryker merged the newly acquired unit with its spine unit and created a new reporting division that the company calls “Neurotechnology & Spine”. This unit currently controls 36% of the neurovascular market.

Covidien assumed second position in the market with 22% market share by acquiring ev3 in June 2010. The company has the broadest portfolio of products in the space complete with the only cerebral aneurysm flow diverter approved in the US.

DePuy moved into close third position by acquiring Micrus Endovascular in July 2010 and merging its activities with its Codman Neurovascular division. DePuy currently controls 20% of the market. DePuy is also the second company in the space with a neurosurgery and spine division and is a leader in the $50 million per year aneurysm clips market. If aneurysm clips are added, total market would be valued at $1 billion and DePuy will move to 2nd position.

Terumo (MicroVention) came in fourth place with 12% of the market and a portfolio of bare platinum and hydrogel coated embolic coils, access catheters and guidewires.

Balt came in fifth place with a broad portfolio of products and 4% market share, the company has not tapped the US market yet. Concentric followed in six place with 3% market share. Other companies include innovative start-ups developing stents or neurovascular thrombectomy devices and small local producers.