

## **Novartis' Exjade could be attractive to generic challenge though approval of Apotex's Ferriprox in US could constrain market share – attorneys**

*by Mintoi Chessa-Florea in London and Jacqueline Kwong in New York*

Novartis' (NYSE:NVS) Exjade (deferasirox) could be attractive to generic challengers because it is one of the two iron chelators in oral formulation, but exclusivities in place may limit the scope for a patent challenge, attorneys said.

Apotex's Ferriprox (deferiprone) - the only other oral iron chelator on the market which was approved in Europe in 1999 and could be approved in the US by the end of 2009 - could constrain a generic's market share, the attorneys agreed.

Exjade is a rationally-designed oral iron chelator. Its main use is to reduce chronic iron overload in patients who are receiving long-term blood transfusions for conditions such as beta-thalassemia and other chronic anemias.

ApoPharma - a division of Apotex - is marketing Ferriprox in Europe and Asia, but not the US. The drug is indicated for the treatment of iron overload in patients with thalassemia major when deferoxamine therapy is contraindicated or inadequate.

Dr Michael Spino, president of ApoPharma, confirmed that an NDA for Ferriprox has been submitted to the FDA. "We anticipate a positive approval, though of course the ultimate decision rests with the FDA", he said, adding that positive data has been reported so far in Europe - with a published report noting a 71% decrease in deaths compared to the standard of care. Canada, he noted, still remains a low priority for filing for approval given the limited number of patients there.

Chad Landmon, a partner at Axinn Veltrop & Harkrider, noted that upon approval of its NDA, Apotex could strategically go to payors and try to get them to favor Ferriprox over Exjade. This would deter generic companies to file an ANDA on Exjade, he suggested.

Ferriprox currently costs about USD 225 for a 100 tablet pack on the British national formulary, while Exjade carries a price tag of USD 2,235 for a 30-tablet pack in the US.

Similarly, Timothy Bickham, a partner at Steptoe & Johnson suggested that if Apotex has already submitted an NDA, there could be some commercial benefit in filing an ANDA for Exjade, because less marketing would be needed. Furthermore, other generic companies would not be deterred by Apotex's drug because Exjade is the dominant drug in the market, noted Narinder Banait, a partner at Fenwick & West.

Yet Frank Rodriguez, a shareholder and attorney at Budd Lerner, noted that there are a number of patent exclusivities protecting Exjade. First, he noted, it seems that the drug was approved on 2 November 2005, so the NCE-1 date would be 2 November 2009. This is the first date on which an ANDA applicant may file for a generic version of the drug, he explained.

Second, the drug has a seven-year Orphan Drug Exclusivity which runs until 2 November 2012. Orphan Drug Exclusivity provides an incentive for drug manufacturers to develop drugs for rare diseases - those affecting fewer than 200,000 people in the US, or affecting larger populations but

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with no reasonable expectation that the sales of the drug would recover the costs, he added.

The Orphan Drug Exclusivity applies only to the use or indication for which the drug is approved. As Exjade appears to be indicated for the treatment of chronic iron overload due to blood transfusions in patients 2 years of age or older, this is the indication to which the Orphan Drug Exclusivity would seem to apply, he noted.

An attorney noted that if Apotex is conducting studies for treatment of thassaemia for its own product, there is a presumption that it could have been testing deferasirox for blood transfusions as well, but this would need to make economic sense.

The attorney also pointed out that there are currently two patents in the Orange Book for Exjade that expire in 2019 and 2017. A 30-month stay of approval which would result from patent litigation, starting from approximately the NCE-1 date of 2 November 2009, would extend to at least May or June 2012. Given the uncertainty of patent litigation, a more conservative theory could be that if Apotex was inclined to file an ANDA for this drug, it would not go to the expense of trying to get approval under another indication - or otherwise try to get around the Orphan Drug Exclusivity. Even if Apotex filed on the NCE-1 date (and thus are most likely to be sued), there will be a 30-month stay extending nearly to the end of that exclusivity period, the attorney noted.

Spino explained that Ferriprox was approved under a narrow indication (thalassaemia major) because of safety concerns related to agranulocytosis; to date however, such side effects have not been an issue with administering the drug, he added.

Spino noted that studies are underway to potentially expand Ferriprox's label to include other conditions of iron overload due to blood transfusions, but at the moment ApoPharma is not applying for these with the FDA, he added.

Frequent blood transfusions result in iron overload, which may also be aggravated by inappropriate increases in iron absorption from the gastrointestinal tract. As there are no natural means for the body to eliminate the excessive iron, such patients develop haemosiderosis. Iron chelators avoid iron deposition, as the excess iron results in damage to the heart, liver, endocrine organs and death ultimately occurs, mainly due to cardiac haemosiderosis.

Apotex declined to comment on any potential litigation.

Novartis has a market cap of USD 83.10bn.