ERG (School of Health and Related Research [ScHARR] University of Sheffield) additional analyses on the technology appraisal of degarelix for treating advanced hormone-dependent prostate cancer post AC meeting – 28 November 2013

For the ERG base case the ICER for the comparator triptorelin 3 monthly (decapeptyl) was £14,798. The ICER value when other LHRH agonists are considered as comparators range from £8,050 (triptorelin monthly gonapeptyl) to £15,243 (triptorelin 6 monthly decapeptyl). (Note Novgos is no longer available).

ERG base case assumptions:

- LHRH agonists and degarelix administered until death;
- One-year duration for which the hazard ratio for differential efficacy applied;
- The proportion of patients receiving chemotherapy after PSA progression was 70% and the proportion of patients receiving abiraterone was 70%

Comparator	ICER
Goserelin 3 Monthly (Zoladex)	£11,262
Triptorelin 3 Monthly (Decapeptyl)	£14,798
Leuprorelin Monthly (Prostap)	£10,493
Goserelin Monthly (Zoladex)	£14,372
Goserelin Monthly (Novgos)	£16,834
Triptorelin Monthly (Gonapeptyl)	£8,050
Triptorelin Monthly (Decapeptyl)	£12,857
Triptorelin 6 Monthly (Decapeptyl)	£15,243

For the ERG analysis in which all treatments are assumed to have the same efficacy in terms of PSA progression the ICER for the comparator Triptorelin 3 monthly (Decapeptyl) is £35,589. The ICER value when other LHRH agonists are considered as comparators range from £20,957 (Triptorelin monthly gonapeptyl) to £36,596 (Triptorelin 6 monthly decapeptyl).

Post AC analysis assumptions:

- LHRH agonists and degarelix administered until death;
- Effect of treatment on PSA progression assumed equal between degarelix and LHRH agonists
- The proportion of patients receiving chemotherapy after PSA progression was 70% and the proportion of patients receiving abiraterone was 70%

Comparator	ICER
Goserelin 3 Monthly (Zoladex)	£28,022
Triptorelin 3 Monthly (Decapeptyl)	£35,589
Leuprorelin Monthly (Prostap)	£26,186
Goserelin Monthly (Zoladex)	£34,488
Goserelin Monthly (Novgos)	£39,758
Triptorelin Monthly (Gonapeptyl)	£20,957
Triptorelin Monthly (Decapeptyl)	£31,245
Triptorelin 6 Monthly (Decapeptyl)	£36,596

For the ERG analysis in which all treatments are assumed to have the same efficacy in terms of PSA progression; SCC adverse events are excluded; and assumes an equal rate of fractures between the degarelix and LHRH agonists arms, the ICER for the comparator triptorelin 3 monthly (decapeptyl) is £149,694. The ICER value when other LHRH agonists are considered as comparators range from £112,825 (triptorelin monthly gonapeptyl) to £152,231 (triptorelin 6 monthly decapeptyl).

Post AC analysis assumptions:

- 3-monthly triptorelin (decapeptyl)
- LHRH agonists and degarelix administered until death
- Effect of treatment on PSA progression assumed equal between degarelix and LHRH agonists
- The proportion of patients receiving chemotherapy after PSA progression was 70% and the proportion of patients receiving abiraterone was 70%
- Assume the rate of fractures is the same for both the degarelix and LHRH agonist arms. (The Weibull curve in the MS for LHRH agonists was used for both arms.)
- Exclude spinal cord compression adverse events from the analysis.

Treatment Arm	Totals			Incrementals			Cost per QALY	Cost per Life Year	Incremental Net Benefit (Threshold £20,000 per QALY)
	Costs	QALYs Gained	Life Years Gained	Costs	QALYs Gained	Life Years Gained			
Triptorelin 3 monthly (decapeptyl)	£20,259	5.732	9.49	£6,955	0.046	0.05	**£149,694**	£126,870	-£6,026
Degarelix	£27,214	5.778	9.55						