



BHA Medication & Doping Control Research Summary: Detomidine ('Domosedan'® Janssen) and butorphanol (Torbugesic® Pfizer)

Why the research was needed

Detomidine and butorphanol are widely used intravenously in horses when routine sedation is required, for procedures such as clipping or suturing a wound. The primary aim of this series of studies was to develop advice for veterinarians and trainers on the use of this combination. The studies were part of the 2011 programme to develop advice for medications considered 'priority substances' by the European Horserace Scientific Liaison Committee ([EHSLC](#)). By working as a member of the EHSLC we reduce the overall number of animal studies needed and prevent spending unnecessary time and money through pooling of information. We usually also achieve harmonisation on the output, usually a [Detection Time](#), and it's underlying screening limit both within Europe and now beyond via our input into the [IFHA](#)'s work on International Screening Limits.

Overview of the study

The work was carried out with horses at the Authority's Centre for Racehorse Studies with analysis at HFL Sport Science. Research procedures, complying with the Animals (Scientific Procedures) Act were subject to ethical review and the analyses were conducted to industry standard quality procedures. A pilot study in March in two horses refined the design for administration in a further 6 horses through the summer with a data extensively discussed and decisions made on advice in October 2011. The effect of both drugs is dose related; doses selected were in the middle of the range of the manufacturers' recommendations: 10 mcg/kg [detomidine hydrochloride](#) followed within 5 minutes by 25mcg/kg [butorphanol tartrate](#). Detomidine is a potent sedative, especially when potentiated by butorphanol, with onset of action within 5 minutes and effects lasting 90-180 minutes. Particular care was taken during this period in terms of both horse and personnel safety. An intravenous catheter was used for the first two days of more intensive blood sampling and then removed.

Outcome

A Detection Time \leq 48 hours for the [detomidine/butorphanol combination](#) has been published by the BHA 28th November 2011. It should be noted that this is not yet agreed internationally but discussions towards that harmonisation are to continue December 2011 with decisions expected to be ratified in February 2012.

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