Preparation and Storage of Analgesic Agents

1.0 Equipment

- **1.1** Safety glasses
- 1.2 Brady Label Printer
- **1.3** P1000 Gilson pipette

2.0 Supplies

- 2.1 20ml Universals
- 2.2 Sterile Water for Injection
- **2.3** 1ml plastic disposable syringes
- **2.4** 1000ul pipette tips
- **2.5** 10ml disposable syringe
- **2.6** 1.5ml Eppendorfs
- 2.7 Brady Labels
- 2.8 Brady Ink Ribbons
- **2.9** Torbugesic (Butorphanol 10mg/ml)







3.0 Procedure

3.1 General Information

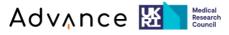
- 3.1.1 Vetergesic and Torbugesic are controlled substances and need to be stored in a locked drugs fridge.
- 3.1.2 Safety glasses must be worn at all times by personnel preparing the media, and by those working in the immediate area.
- 3.1.3 Once opened, sterilised water can be stored for 1 week only.

3.2 Preparing the Vetergesic

- 3.2.1 The Vetergesic is prepared by diluting 1ml Vetergesic with 11ml sterile water.
- 3.2.2 Invert the universal several times to ensure the solution is evenly mixed.
- 3.2.3 Aliquot 1ml into 1.5ml Eppendorf's and label with 'VET' and the date prepared in the format DD/MM/YYYY.
- 3.2.4 Parafilm the Eppendorfs and store in lockable fridge (4°C) in the lab for up to 4 weeks from the preparation date.

3.3 Preparing the Torbugesic

- 3.3.1 For every 0.5ml of Torbugesic stock solution (10mg/ml), dilute in a total of 19.5ml sterilised water for injections.
- 3.3.2 Invert the universal several times to ensure the solution is evenly mixed.
- 3.3.3 Aliquot 1ml into 1.5ml Eppendorf's and label with 'TORB' and the date prepared in the format DD/MM/YYYY.
- 3.3.4 Parafilm the Eppendorfs and store in lockable fridge (4°C) for up to 4 weeks.







4.0 Appendix 1

VETERGESIC[™] FOR MICE

Buprenorphine 0.3 mg/ml (type of analgesic: Opioid)

Recommended dose rate for mice: 0.05 – 0.1mg/kg

Bodyweigł	t Dose:
15 gram:	0.03 – 0.06ml
20 gram:	0.04 – 0.08ml
25 gram:	0.05 – 0.1ml
30 gram:	0.06 – 0.12ml
35 gram:	0.07 – 0.14ml
40 gram:	0.08 – 0.16ml
45 gram:	0.09 – 0.18ml
50 gram:	0.1 - 0.20 ml
55 gram:	0.11 – 0.22ml
60 gram:	0.12 – 0.24ml
The higher dose is the maximum dose for any 12 hours period.	
Route:	sub-cutaneous
Time to effect: 15 min	







5.0 Appendix 2

Mice should receive a dose of 1mg/kg of Torbugesic which mean a 25g mouse would receive 0.025mg.

The stock solution of Torbugesic is 10mg/ml and this must be diluted 1:40 to deliver the correct dose in a 0.1ml injection volume.

Calculation: To deliver a 0.025mg dose in 0.1ml

0.1ml injection volume of the stock solution (10mg/ml) contains 1.0mg of Torbugesic.

To achieve a dosing rate of 0.025 mg/25 g mouse (in a 0.1 ml injection) the stock solution needs to be diluted 40 times (1000 g/25 g = 40)





