

EQUINE INFLUENZA INQUIRY

SUBMISSIONS ON BEHALF OF RANDWICK EQUINE CENTRE ("REC") AND DR ARGYLE

1. The Terms of Reference require that an inquiry be conducted and a report prepared with respect to:
 - a. the circumstances that have contributed to the outbreak of equine influenza in Australia; and
 - b. the need for any strengthened biosecurity procedures for quarantine management of imported horses.
2. The Inquiry has received a great deal of evidence, and counsel assisting have prepared detailed and extensive submissions in connection with the second of the above questions. REC and Dr Argyle have no argument with the imposition of stricter biosecurity procedures and seek to be heard only in connection with the first of the questions the subject of inquiry and report.

Circumstances contributing to the outbreak

3. It is important to keep in mind the distinction between recognising weaknesses in the procedures adopted at ECQS and reaching conclusions as to circumstances that "have contributed to the outbreak of equine influenza in Australia".
4. As Counsel Assisting acknowledge at paragraph 1.3 of their submissions, the evidence does not establish the cause of the escape of the virus from ECQS. Consequently, the circumstances contributing to the escape of the virus from ECQS cannot be identified.
5. As might reasonably be expected, the attention of officers of the DPI following the outbreak and of persons assisting the Inquiry focused on theses in connection with the mechanism by which the virus escaped into the general horse population which were regarded at the time as the most probable explanations. As matters have transpired, the result of the investigation has been to exclude, at least on the basis of information presently available, some of those potential explanations.

6. More particularly, fomite transmission of the virus on people or equipment in contact with horses in transit or at ECQS was viewed as the probable cause and extensively investigated. The absence of any indication, following such extensive inquiry, that the transmission of the virus occurred in that way emphasises the need to address other potential causes and biosecurity measures which should be taken to address them.
7. The following conclusions are reasonably available based upon the evidence produced to the Inquiry:
 - a. The virus entered Australia through the importation of the stallions arriving from Japan on 8 August, 2007;
 - b. The infection of horses in the general horse population 10 days later was not coincidental, and can be linked to the arrival of the horses from Japan;
 - c. The absence of reported infections in the general horse population prior to the "Carols Ranch" event at Maitland indicates that the virus did not escape into the general horse population until a short time, probably a few days, prior to 17 August, 2007, and prior to that time the infection was contained within ECQS;
 - d. None of the horses attending the Maitland event were in contact with people or equipment that had, in turn, been in direct contact with infected horses at ECQS; and
 - e. Consequently, on the basis of the evidence put before the Inquiry, the virus escaped from ECQS by a mechanism other than that which has been the principal focus of the investigation. The other possibilities include windborne spread, fomite transmission by birds or infection of a bird or dog within ECQS which has then taken the virus out of the facility.
8. With great respect to Counsel Assisting the Inquiry, it is inappropriate to "exclude"¹ as a possible means of escape of the virus from ECQS, those mechanisms which are perceived to pose a lower degree of risk than transmission by the mechanism described in sub-paragraph 6 above. In substance, Counsel Assisting urge the conclusion, by a process of elimination based substantially upon perceived degrees of risk, that the escape of the virus was brought about by the one cause which has been substantially disproved². In circumstances where the result of the extensive investigations undertaken to date

¹ Paragraphs 16.18 and 16.20

² Paragraphs 16.19 and 16.21.

has been to substantially eliminate what was thought to be the most probable cause, other potential causes should be regarded as enhanced probabilities rather than being excluded.

9. It is important to recognise in this context that the mode of transmission which has been accorded the status of “most likely scenario” is itself by no means the most simple and effective means of transmitting a virus. The evidence of Dr Gilkerson demonstrates the fragility of the influenza virus once it is expelled from the infected animal.³ The survival of the virus on human skin or hair over a period of hours and the consequent infection of another animal should not be treated as a high probability as opposed to another mere possibility.
10. No scientific basis has been identified for “excluding” as a possibility windborne spread of the virus from ECQS. With respect, the Inquiry is not in a position to exclude such possibilities in circumstances where:
 - a. the authors of the Ausvetplan saw fit to publish anecdotal evidence to the effect that windborne spread over substantial distances (8 kilometres) is possible;⁴
 - b. Dr Britton reported that there was considerable evidence of windborne spread of the disease in the Australian outbreak,⁵ and that there was evidence of windborne spread from ECQS to nearby properties;⁶ and
 - c. Dr Britton saw fit to produce a report recognising the possibility that horses attending a show jumping event at SIEC contracted the virus by windborne spread⁷, notwithstanding that she later dismissed it as improbable.
11. Fomite transmission of the virus by birds is another possibility which cannot be excluded. Close contact between birds and horses is commonplace. This is particularly so where birds exhibit an interest in horse feed, a situation which also provides a reasonable possibility of contact with viral material shed from the sinuses of an infected horse⁸. The propensity for birds to be attracted to horse feed also provides the realistic opportunity for transmission of the virus to another animal.

³ WIT.INQ.001.0022. See also Dr Britton at DPI.0001.002.0007.

⁴ WIT.INQ.001.0030

⁵ DPI.0001.002.0025

⁶ Ibid

⁷ DPI.0001.002.0092

⁸ T4245

12. More importantly, it is not appropriate to “exclude” the possibility of transmission by an infected dog or bird. There can be no argument with the proposition that, having regard to the fragility of the virus, an infected animal presents a far higher risk of spread of the virus than fomite transmission.
13. The evidence of Dr Crispe⁹ demonstrates the capacity for transmission of the virus to dogs; even those that are not in direct close contact with infected horses.
14. While it is reasonable to recognise a distinction between the quantity of viral material likely to have been present at Warwick Farm Racecourse with that produced by vaccinated horses at ECQS, the distinction cannot justify excluding as a reasonable possibility the infection of a dog at ECQS. Once again, that is particularly so in circumstances where a thorough investigation of the preferred thesis operates to substantially discount its likelihood.
15. The fact that there have been no “reported incidents” of dogs infecting horses provides no basis whatever for significantly discounting that possibility. The reality is that the mechanism by which horses are infected with the virus is rarely the subject matter of an investigation.
16. Further, there is no suggestion in the literature¹⁰ or any evidence of Dr Newton that the virus is in some way rendered innocuous when a dog is infected. There is no basis for suggesting that infected dogs do not spread the virus. Indeed, the testing referred to by Dr Crispe suggests that they do, as does the fact that the virus apparently spreads readily throughout dog populations.
17. The only conclusion available as a matter of logic (and it is supported by the comments of Dr Newton¹¹) is that given sufficiently close contact, an infected dog could readily infect a horse with the virus.
18. The possibility of a dog becoming infected at ECQS and transmitting the virus, either directly or through other dogs, to a horse in the general population is very real.
19. Finally, the possibility of the spread of the virus through an infected bird cannot be dismissed. As Dr Newton confirmed¹², the H3N8 virus is known to have infected birds in China, and provided there was close contact between the bird

⁹ WIT.REC.001.0001 and WIT.REC.002.0001

¹⁰ REX.0006.001.0001 and REX.0006.002.0001

¹¹ T4196.35-4197

¹² T4197.44

and horse, the possibility of influenza virus as being transmitted by birds cannot be excluded¹³.

Conclusion

20. By comparison with close contact with another infected horse, all of the potential mechanisms by which a horse attending the Maitland event became infected are relatively quite improbable. However, horse to horse contact can be ruled out.
21. One of the remaining possibilities has been the subject of extensive investigation, namely fomite transmission of the virus through contact with a person or equipment in direct contact with horses at ECQS. The evidence produced as a consequence of that investigation suggests that the virus did not escape quarantine by that mechanism.
22. It is not possible to draw any conclusion on the basis of the evidence as to which of the alternate possibilities occurred. Consequently, the circumstances contributing to the escape of the virus from ECQS cannot be identified or reported upon.

Potential Adverse Findings

Lack of complaint

23. In respect of each of Drs Nash, Bruyn and Argyle, potential adverse findings have been identified in connection with their failure to complain to AQIS about its failure to provide adequate showering facilities.
24. It is not apparent that consideration and comment upon the reasonableness of their conduct in that regard is necessary in order to respond to the questions which are the subject matter of the report to be produced under the Terms of Reference. The result of Dr Britton's epidemiological investigation is to exclude the activities of any of the veterinary surgeons from the range of potential causes of the escape of the virus from ECQS. The only connections identified between the activities of the veterinary practitioners and horses attending the Maitland event have been shown not to have resulted in the spread of the virus¹⁴. Consequently, any failure to complain about the lack of appropriate showering facilities was not a contributing factor to the outbreak of the disease and comment upon the reasonableness or otherwise of that failure is unnecessary for the purpose of addressing the first issue the subject matter of the report.

¹³ T4199.16

¹⁴ T4047.13 to 4048.23; T4050.21 to 4050.35

25. The provision of an appropriate showering facility on the perimeter of the ECQS (which has, in fact, been introduced following the outbreak) is plainly a measure which might be recommended in response to the second of the questions the subject matter of the report. However, it is not relevant to that issue, or any related question, to consider whether visiting veterinary surgeons ought to have complained about the facilities being provided.
26. In any event, it is respectfully submitted that any significant adverse comment of the type contemplated is unwarranted.
27. The REC vets and Dr Argyle were not asked to assist AQIS in any way. They attended ECQS to provide veterinary services to the owners of horses. Their professional responsibilities did not extend to considering the adequacy of the facilities provided or to making recommendations to AQIS in that regard.
28. Further, they were justified in concluding that AQIS had the capacity to make its own judgments about the management of the ECQS and of the adequacy of the facilities provided for that purpose. AQIS was responsible for PEQ procedures and for requirements in connection with vaccination and other precautions to avoid the introduction of diseases. The private veterinary practitioners had no involvement in the consideration of those matters, or the additional procedures necessary to avoid the spread of the disease out of quarantine. They were also not called upon to consider the likelihood of a vaccinated horse being infected or of an apparently healthy horse shedding virus.
29. In the circumstances, and putting to one side the benefit of hindsight, it would be harsh to visit adverse findings upon those practitioners for failing to take AQIS to task over the adequacy of its procedures and facilities.

Difficulties in obtaining samples

30. It is suggested that an adverse finding may be made that Dr Nash “overstated the difficulties and reasons for not taking swabs or blood samples for aggressive horses”.
31. The reason offered by Dr Nash for not taking swabs of two horses was that the grooms warned him against that course.¹⁵ There is no reason to doubt the accuracy of that explanation and, consequently, no basis for suggesting that it is an “overstatement”.

¹⁵ T1564.41

32. In connection with the taking of blood samples, the comment from Dr Nash that it is "not always possible"¹⁶ needs to be read in the context of the services being provided by him. As he indicated in the following answer, it is a "risk management issue". Where blood samples are being taken by private veterinarians for the purpose of confirming the condition of apparently healthy and very valuable horses, it is understandable that a clinical decision would be made that the risk associated with taking the sample outweighed the potential benefit to the animal.
33. The fact that Dr Manahan has never had to sedate a horse in order to obtain a blood sample in the course of his practice as a race course veterinary surgeon does not provide a basis for suggesting that the difficulties encountered in handling the shuttle stallions at the quarantine facility were overstated.
34. It is implicit in Dr Manahan's agreement with Dr Bruyn's recommendation of the use of a crush¹⁷ that he does not regard the difficulties which Dr Nash identified as being improbable. Indeed, Dr Manahan recommended that a well designed crush be incorporated in an airport facility to test arriving horses.
35. It is further suggested that an adverse finding may potentially be made against Dr Bruyn to the effect that he overstated difficulties with the tranquilisation and sedation of horses and their side-effects.
36. While Dr Manahan was of the view that the clinical risks associated with the use of tranquilisers can be avoided by using more modern sedatives, Dr Manahan appeared to have very little experience of using sedatives to restrain difficult horses. His evidence¹⁸ was that he had very rarely used sedatives to restrain difficult horses. He had never used a sedative to restrain a horse for the purpose of taking a blood sample.¹⁹ His experience and evidence is entirely consistent with the proposition advanced by Dr Bruyn, namely that the use of a horse crush is the appropriate means of dealing with difficult and dangerous stallions.

Knowledge of quarantine processes

37. It is suggested that Dr Bruyn should have "understood and acted on the assumption that PAQ at ECQS was required as part of a necessary continuum of quarantine". The potential adverse finding appears to arise from Dr Bruyn's

¹⁶ T1565.12

¹⁷ WIT.MANA.001.0001 para. 5

¹⁸ T2795.44

¹⁹ T2796.06

evidence that he had presumed, as a result of the PEQ procedures, that horses in PAQ would not have equine influenza.²⁰

38. Having regard to the Terms of Reference, it is not surprising that the focus of the Inquiry has not been upon the extent to which private veterinarians were aware of the extent to which vaccination and PEQ could reduce or eliminate the risk of equine influenza in PAQ. Adverse findings in respect of issues which have not been meaningfully examined should, with respect, be avoided.
39. Further, it must be borne in mind that equine influenza is not an illness with which private veterinarians in Australia have any experience. Given the absence of any meaningful inquiry into the issue, the findings should not be made based upon assumptions as to the extent of knowledge of the disease and of available vaccines amongst members of the private profession.
40. Similarly, the extent to which Dr Bruyn and other members of the private profession should or should not be expected to be aware of the possibility that apparently healthy horses could be shedding virus²¹ has not been the subject matter of inquiry and should not be the subject matter of findings.

General adverse findings

41. Finally, there are two “general” potential adverse findings which have been notified, namely:
- a. that each of the veterinarians attending ECQS failed to “take the responsibility that he or she should have” for biosecurity in relation to horses being treated by them or with which they come into contact; and
 - b. that veterinarians attending ECQS had an insufficient understanding of quarantine, infectious equine diseases and the means of subduing and sampling horses.
42. It is not possible to respond meaningfully to these allegations in the absence of any proper identification of the practitioner concerned or of the failures alleged
43. There is no basis in the evidence adduced before the Inquiry for concluding that any of the veterinarians that attended upon horses at ECQS did not possess or exercise a level of expertise usual amongst members of the private profession specialising in the treatment of horses. Further, that is not an issue which has

²⁰ T1634.22

²¹ T1635.04

been raised against any such practitioner or answered by them. Accordingly, any finding to that is, with respect, unwarranted.

44. In relation to knowledge and adoption of biosecurity practices, it is important to emphasise again that members of the private profession are not experts in biosecurity and cannot be expected to possess significant clinical experience in connection with exotic diseases to which they have had no exposure. Similarly, members of the profession cannot be expected to have knowledge of the availability and effectiveness of vaccines in connection with exotic diseases to which they have no exposure.
45. Private veterinary practitioners attending ECQS did so in order to assess the health of animals in quarantine and to provide treatment as necessary, at the request of owners. If it had formed any part of their engagement to provide advice in relation to biosecurity then it would have been reasonable to expect them to thoroughly acquaint themselves with the issue. However, that was the responsibility of others with access to expert scientific and professional assistance as required. It was not unreasonable for private practitioners to proceed on the basis that AQIS was properly performing its responsibilities.
46. In those circumstances, members of the private profession should not be required to make professional judgments as to biosecurity procedures to be adopted when attending a facility such as ECQS.
47. The responsibility for formulating and communicating the procedures to be adopted at ECQS rests with those who are responsible for managing the facility. It would be inappropriate to make a finding that any veterinarian attending the ECQS failed to "take the responsibility" that he or she should have when that responsibility plainly rested with others.

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