

Multi-disciplinary workshop to develop guidelines on recognizing colic in the horse.

'Best practice' guidelines are evidence-based strategies, widely used in human medicine to support decision-making processes. The purpose of such guidelines includes care recommendations based on the best available evidence, reducing inappropriate variation in practice, and providing a focus for education and research. They can be used to improve recognition of diseases, such as the campaign to increase awareness of clinical signs of meningitis (Meningitis Now – Meningitis symptoms cards, [www.meningitisnow.org](http://www.meningitisnow.org)), or improve the diagnosis of brain tumours in children (Headsmart - Be Brain Tumour Aware campaign, [www.headsmart.org.uk](http://www.headsmart.org.uk)). There are 220 current published guidelines on the NICE guidance list, ranging from guidelines on 'Surgical management of otitis media with effusion in children' to 'Community Engagement' (<https://www.nice.org.uk/guidance>). Despite the wide use of guidelines in human medicine, there is a lack of similar guidelines for most areas of veterinary medicine. This is also hampered by a strong bias within the equine veterinary literature towards studies of referral hospital case populations. Research evidence from primary practice and the general population of animals, which is essential for developing many guidelines is often sparse or absent in veterinary literature.

The Nottingham Colic Project ([www.colicsurvey.com](http://www.colicsurvey.com)) is a research programme which aims to develop guidelines on the recognition and diagnosis of colic. It is based within the School of Veterinary Medicine and Science, University of Nottingham, and has two full time PhD students, Laila Curtis and Adelle Bowden, with contributions from undergraduate students (Tom Bayes, Marise Curran, Kyra Jennings, Isla Trewin, Jennifer Thomas and George Worden) and clinical scholar Tom Cullen. The project is supervised by Professor Sarah Freeman, Dr John Burford and Professor Gary England, with collaboration from Dr Rachel Dean and Dr Marnie Brennan from the Centre for Evidence-Based Veterinary Medicine. Colic is a logical disease choice for the development of guidelines, as it is one of the most important causes of morbidity and mortality in the horse (Tinker *et al.* 1997, Traub-Dargatz *et al.* 2001), and a significant emergency problem for the equine practitioner. The first or primary assessment of these cases is arguably the most important decision-making step, as early diagnosis and treatment can impact on prognosis and survival for critical cases (Proudman *et al.* 2005). There is limited evidence on 'first opinion' colic, which includes two studies of incidence and /or causes in the UK (Proudman 1992; Hillyer *et al.* 2001), one study on clinical parameters of horses presenting in primary practice in France (Goncalves *et al.* 2006), and one study in the UK reporting on the clinical parameters of horses with recurrent colic (Scantlebury *et al.* 2011). The Nottingham Colic Project has been working to review the current evidence on colic, develop new evidence from primary practitioners, and to capture opinions from horse owners / carers and veterinary surgeons. The current phase of the programme is to present the evidence to the different stakeholders who may use it, to generate evidence-based statements through multidisciplinary workshops and then to use a Delphi process to establish guidelines. The international tool for evaluating how clinical practice guidelines are developed is called the AGREE II Instrument (Appraisal of Guidelines for Research and Evaluation) ([www.agreetrust.org](http://www.agreetrust.org)). This describes the key aspects of developing and appraising guidelines, using 23 items across six different domains. These

include defining the scope and purpose of the study (Domain 1. Scope and Purpose), involving different professionals in the guideline development group, and seeking the views and preferences of the patients, public etc. (Domain 2. Stakeholder Involvement), a systematic review of the evidence (Domain 3. Rigour of Development), and developing recommendations which are clear and unambiguous (Domain 4. Clarity of Development). The Agree II Instrument is being used by the Nottingham Colic Project as a basis for developing clinical practice guidelines for equine colic.

The first multidisciplinary workshop, to review the evidence and develop evidence statements, was held on Saturday 24<sup>th</sup> November, kindly supported by World Horse Welfare. Participants were sent evidence packs prior to the event, which outlined the aims of the project, the methodology to be used, processes of evidence appraisal, and summaries of recent research evidence from the University of Nottingham and the University of Liverpool (Curtis et al. 2014a, Curtis et al. 2014b, Scantlebury et al. 2014). During the workshop, this research evidence was also presented as short summaries:

Presentation 1. Systematic review of risk factors for colic, Laila Curtis.

Presentation 2. Could it be colic? Horse-owner decision making and practices in response to equine colic, Claire Scantlebury.

Presentation 3. Horse owners' opinions and knowledge of colic – an online survey of 1424 horse owners, Adelle Bowden.

Presentation 4. The clinical features, diagnosis and treatment of 1016 cases of colic presented to first opinion practitioners, and the differentiation of critical and non-critical cases, Laila Curtis.

This was followed by facilitated discussion groups to generate recommendations on clinical signs of horses with colic.

The presentations were recorded, and will be made open access as audiovisual recordings through World Horse Welfare and the Nottingham Colic Project website.

Forty seven participants attended the workshop, including 29 horse owners / carers, veterinary surgeons from Avonvale Veterinary Centres, Bell Equine Hospital, Defence Animal Centre, Oakham Equine Hospital, Redwings Horse Sanctuary, Scarsdale Equine Hospital, The Donkey Sanctuary, and representatives from World Horse Welfare, the British Equine Veterinary Association, the British Horse Society, the Pony Club, South Essex Insurance Brokers, and the Veterinary Defence Society. The horse owners / carers came from a wide range of different locations across the UK, had all personally experienced colic in a horse which they owned or cared for, and were allocated to different discussion groups based on their experience of colic, and the typology of their relationship with their horse. The facilitated discussions utilized mixed small groups (5-6 participants) with an experienced facilitator, and an undergraduate student 'note-taker', generating statements around three key areas – common signs of colic, signs of colic in critical cases, and history and signalement data for colic cases. Each group produced independent recommendations, identifying the source of evidence of each of these, and the consensus within the group. There were lively discussions within the groups during this first workshop, but a high degree of consensus within each group on individual signs of colic, but debate over the significance and combination of signs. Dr Mark Bowen, Vice President of BEVA, who attended and participated in the discussion groups, commented that the workshop was 'an opportunity for owners and vets to come together to understand the factors important to each group when faced with horses with colic. As a result, our understanding of sometimes subtle clinical

findings that are only appreciated by owners have been captured for the first time.’ The next phase of the research will be to consolidate and combine these evidence statements into a final list (e.g. 27 recommendations on clinical signs of colic were generated across the different discussion groups, which will be reviewed, consolidated and combined before the Delphi process). These recommendations will then be considered by a larger group of stakeholders (including vets and horse owners) through an online Delphi process to develop the final evidence-based consensus guidelines.

The research group will be holding a second multi-disciplinary workshop early in 2015, which will review the evidence and decision making around the diagnostic approach to equine colic. The project team would welcome veterinary surgeons with a range of different experiences to contribute to the Delphi process for both workshops, and to attend and contribute to the second workshop on diagnostic approach, and they can be contacted through the project email address: [contact@colicsurvey.com](mailto:contact@colicsurvey.com).

The final outcomes of the project will be the development of best practice guidelines for colic, to assist horse owners / carers and veterinary surgeons with decision-making in cases of equine colic. There may be concern amongst some professionals about the development and adoption of guidelines within the veterinary profession. However, guidelines are not rules that must be obeyed – they consolidate and interpret the evidence to support clinical decision making. They need to be considered in the context of each individual horse, and different circumstances, but can provide guidance and help in decision making for horse owners and veterinary professionals. They are an essential part of medical health care, and it is very likely that will become integrated into veterinary medicine in a similar manner.

The overall aim of this project is to improve the recognition and diagnosis of colic through a collaborative approach with vets and horse owners. The project team will share their experiences and methodologies, as well as the project outcomes, and we hope that this will stimulate and support similar work in other areas of veterinary medicine.

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The collaborators and facilitators on the workshop:

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Dr Claire Scantlebury

Ms. Caroline Quarmby

Ms. Marise Curan  
Mr. Tom Bayes  
Ms. Laila Curtis  
Ms. Adelle Bowden  
Professor Gary England

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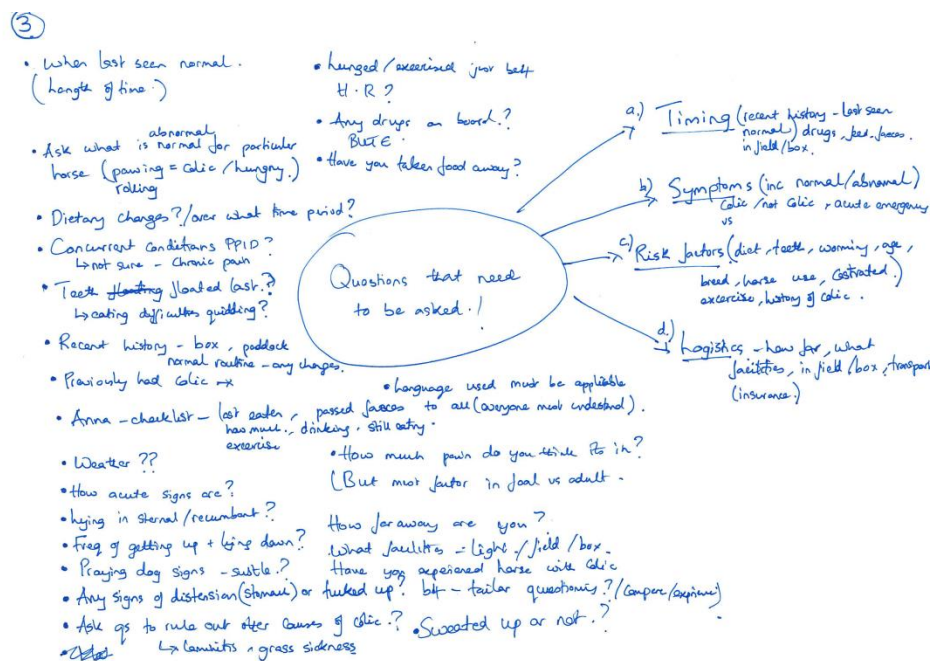
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## Images

1. Mindmap from discussion group on what questions / history a vet should obtain in a horse with colic?



2. Participants, researchers and facilitators from the first colic workshop



### 3. Discussion groups

