Developing best practice guidelines on equine colic

Sarah Freeman and Laila Curtis describe an ongoing project that is aiming to develop evidence-based, best practice guidelines to help owners and veterinary surgeons recognise the signs of colic in horses. They also report on the first of two multidisciplinary workshops during which the evidence was discussed by a range of different stakeholders.

‘BEST practice’ guidelines are evidence-based strategies, widely used in human medicine to support decision-making processes. The purpose of such guidelines includes allowing care recommendations to be 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; for example, the campaign to increase awareness of clinical signs of meningitis (Meningitis Now – Meningitis symptoms cards, www.meningitisnow.org.uk), or improve the diagnosis of brain tumours in children (Headsmart – Be Brain Tumour Aware campaign, www.headsmart.org.uk). There are 220 current published guidelines on the National Institute for Health and Care Excellence (NICE) guidance list, ranging from guidelines on ‘Surgical management of otitis media with effusion in children’ to ‘Community engagement’ (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. For equine practice, this is also hampered by a strong bias within the 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.

Why colic?

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 and others 1997, Traub-Dargatz and others 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 and others 2005). There is limited evidence on ‘first-opinion’ colic, with two studies of incidence and/or causes in the UK (Proudman 1992, Hillyer and others 2001), one study on clinical parameters of horses presenting in primary practice in France (Goncalves and others 2006), and one study in the UK reporting on the clinical parameters of horses with recurrent colic (Scantlebury and others 2011).

About the project

The Nottingham Colic Project (www.colicsurvey.com) is a research programme that aims to develop guidelines on the recognition and diagnosis of colic. It is based within the School of Veterinary Medicine and Science at the University of Nottingham, and involves 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 a clinical scholar, Tom Cullen. The project is supervised by Sarah Freeman, John Burford and Gary England, with collaboration from Rachel Dean and Marnie Brennan from the Centre for Evidence-Based Veterinary Medicine.

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). 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 that 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.

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Participants, researchers and facilitators at the first colic workshop

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Workshop

A multidisciplinary workshop, to review the evidence and develop evidence statements, was held on November 24, 2014, with the support of World Horse Welfare. Participants were sent evidence packs before 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 and others 2014a, b; Scantlebury and others 2014). During the workshop, this research evidence was also presented as short oral summaries. The presentations were recorded, and will be made freely available as audiovisual recordings through World Horse Welfare and the Nottingham Colic Project website.

The presentations were followed by facilitated discussion groups to generate evidence statements on clinical signs of horses with colic.

Forty-seven participants attended the workshop, including horse owners/carers, veterinary surgeons and representatives from World Horse Welfare, the British Equine Veterinary Association (BEVA), the British Horse Society, the Pony Club, South Essex Insurance Brokers and the Veterinary Defence Society. The 29 horse owners/carers came from a wide range of different locations across the UK, had all personally experienced colic in a horse that 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 used mixed small groups of five or six participants, with an experienced facilitator and an undergraduate student ‘note-taker’. Each group generated statements around three key areas – common signs of colic, signs of colic in critical cases, and history and signalment data for colic cases – and each produced independent recommendations, identifying the source of evidence of each of them, and the consensus within the group.

There were lively discussions within the groups during this first workshop, and a high degree of consensus within each group on individual signs of colic, but debate over the significance and combination of signs. 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 has 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 (for example, 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.

Guidelines not rules

The final outcomes of the project will be the development of best practice guidelines for recognising colic, to assist horse owners/carers and veterinary surgeons with decision making. There may be concern among 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 they 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,
The research group will be holding a second multidisciplinary workshop on February 28, 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. They can be contacted through the project email address: contact@colicsurvey.com.

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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