



## Critical colic cases

Colic is responsible for 1 in 3 emergency equine veterinary call-outs and is a major cause of death or euthanasia in horses. Here at Oakham Veterinary Hospital we have teamed up with the University of Nottingham and The British Horse Society to bring you a series of informative articles about this important condition. Topics covered include:

- What is colic?
- Types of colic
- Recognising colic
- Colic: Causes and prevention
- Colic: What to do
- Colic: What will happen when the vet comes
- Critical colic cases
- Colic: The decision to refer
- Colic: Costs and insurance cover

In this article, we focus on critical cases of colic. These are defined as horses that:

- Require surgery or intensive medical care
- Are euthanised
- Die

Research carried out by the University of Nottingham has shown that up to 20% of colic cases fall into one of these categories.

### ***Time is of the essence***

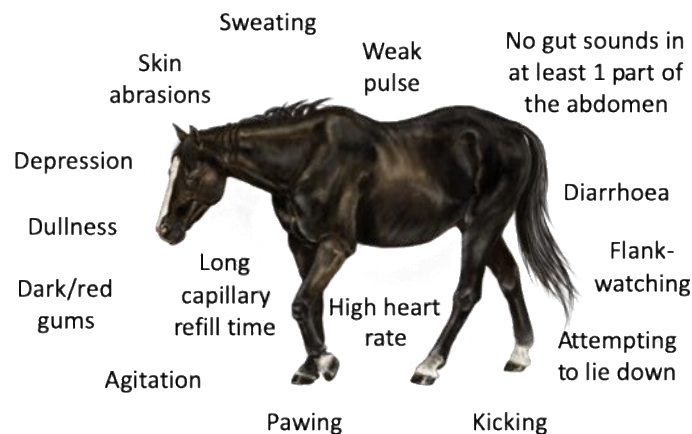
For those cases that will be referred for surgery or intensive medical care, the time taken between the first signs of colic and the horse arriving at the referral centre can quite literally make the difference between life and death. This means that it is very important to:

- Check your horse regularly
- Call the vet immediately if colic is suspected
- Be prepared ahead of time for the decisions you may have to make (see the article 'Colic: The decision to refer' in this series)

For these critical cases, anything that you can do in terms of being prepared will mean that the horse gets to the referral centre earlier – a factor that may improve the chances of survival. The [British Horse Society](#) has more information on this topic.

**Identification of critical cases**

There will always be cases of colic that don't 'follow the rules', and veterinary assessment is vital to determine the severity of any case. However, critical cases are often characterised by one or more of the features shown in Figure 1.



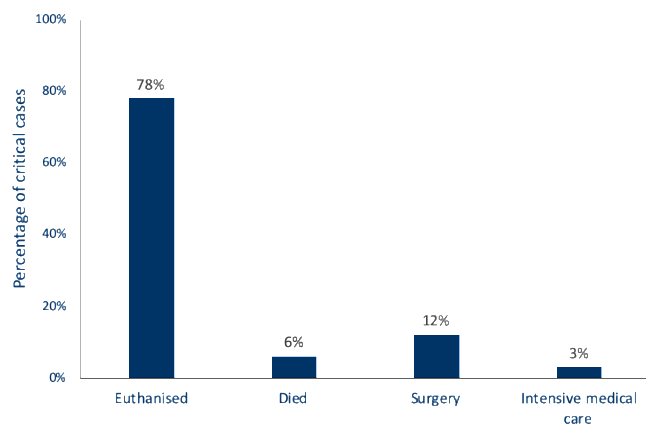
*Figure 1. Signs that may characterise a critical case of colic*

Not every critical case will show all of these signs and your vet will take all available information into account before deciding whether referral is advisable. In some cases, the need for referral will be obvious, in others the situation will be less clear-cut. However, because delaying referral often leads to a poorer outcome, it is better to refer a horse that turns out not to require surgery than to delay referring one that does.

**What happens to critical cases?**

A recent survey involving over 1,000 cases of colic in the UK showed that 24% were 'critical' (euthanised, referred or died) and 18% (approximately 1 in 5) were euthanised. Of the critical cases, 78% were euthanised, 12% had surgery, 3% had intensive medical care, and 6% died (Figure 2).

*Figure 2. Rates of referral, euthanasia and death in critical colic cases in the UK*



The high percentage of horses that were euthanised does not necessarily reflect the percentage that required euthanasia based on the severity of their colic. There may be a number of reasons why referral, surgery or intensive treatment is not an option for a particular horse or owner. It is likely that a higher proportion of horses in this study would have survived if referral to an equine hospital had been an option. However, for horses that are likely to have a very poor outcome (for example, those with acute grass sickness or with incurable or extremely severe colic), euthanasia at the yard is the most humane option.

**Prognosis (likely outcome) after referral to hospital**

Data from several large studies show the prognosis for survival (i.e., the chances of survival) and return to work in horses that have surgery or intensive medical care for colic (Figures 3 and 4). It must be remembered that these data represent averages for large populations of horses that had many different types of colic – any individual horse may have a prognosis that is substantially better or worse than the averages shown in Figures 3 and 4. Also, a horse’s chance of survival or return to work may be affected by a range of factors, some of which may not be related to the colic episode (e.g., development of lameness or age-related problems).

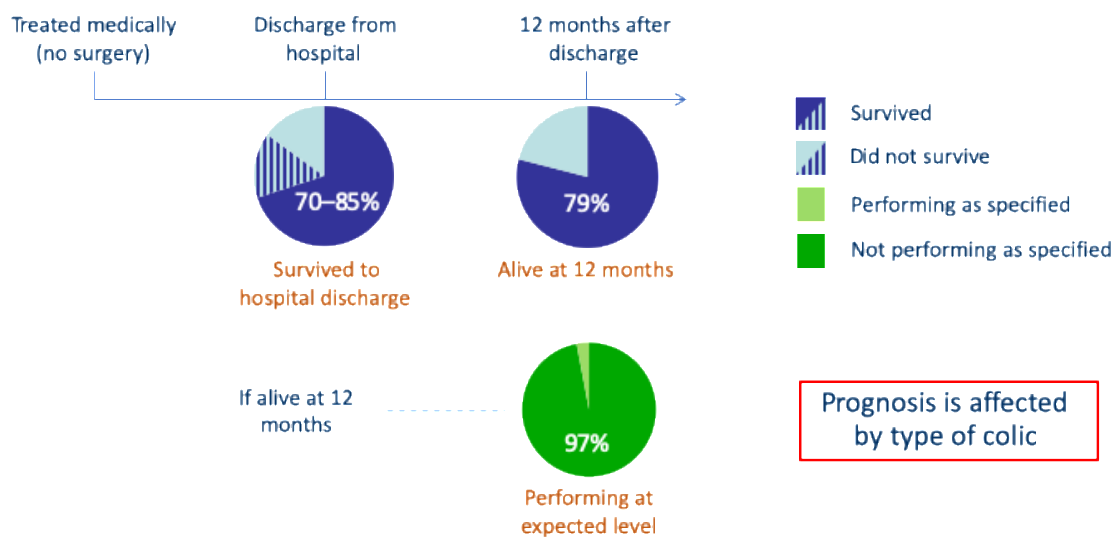


Figure 3. Prognosis for survival and return to athletic activity after intensive medical care

The data in this figure are taken from 2 studies involving different populations of horses with differing outcomes – the hatched area represents the difference between studies in the percentage of horses that survived to hospital discharge

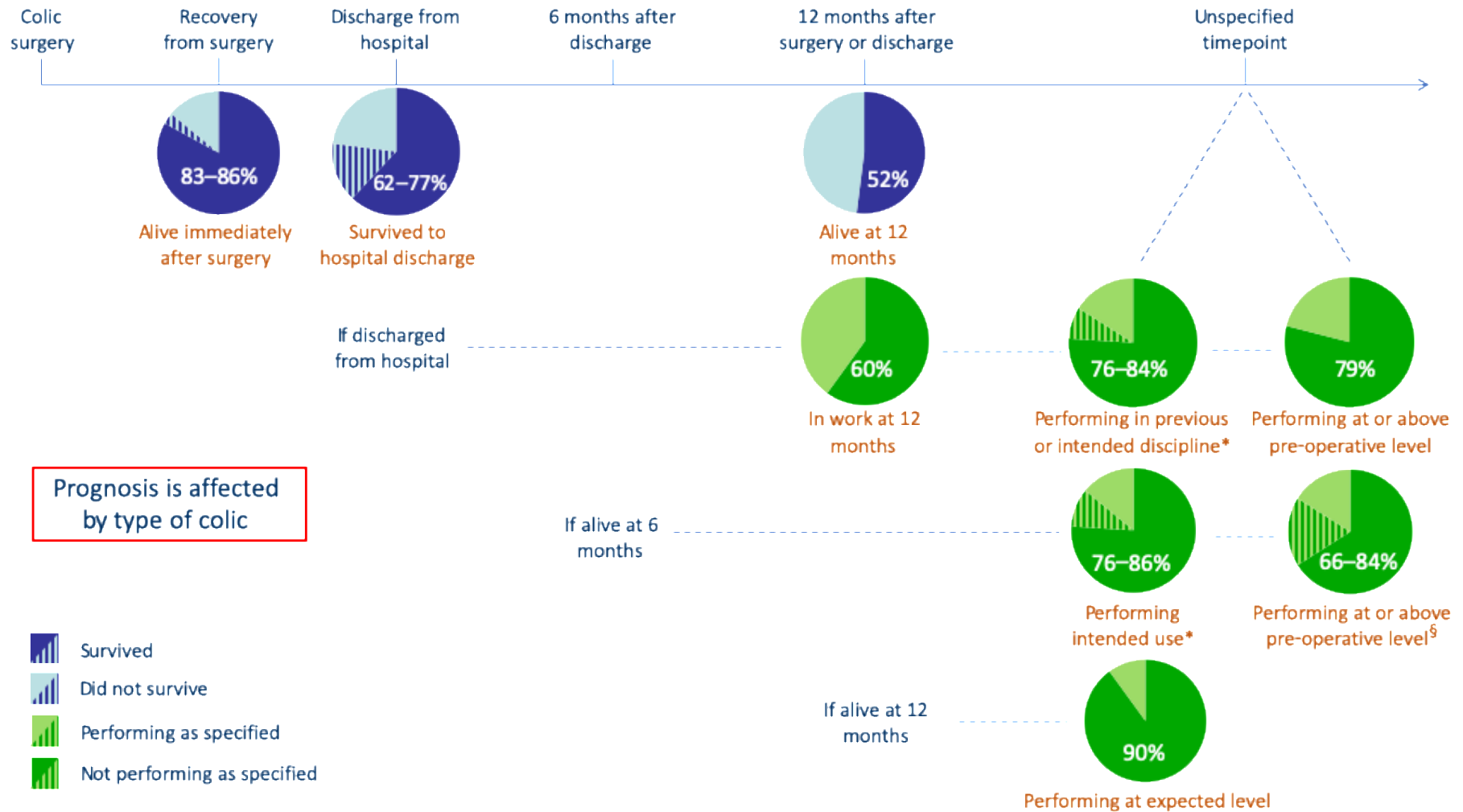


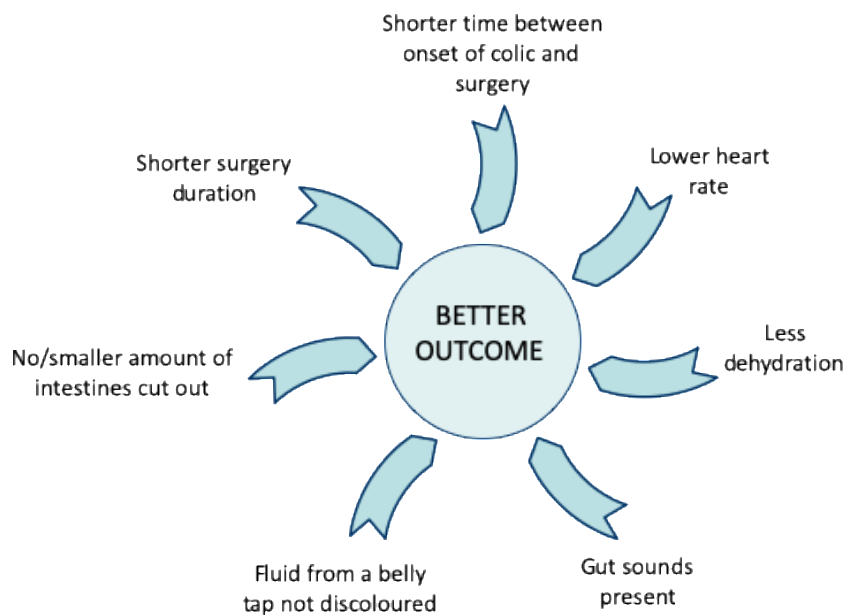
Figure 4. Prognosis for survival and return to athletic activity after colic surgery

The data in this figure are taken from 6 studies involving different populations of horses with differing outcomes – hatched areas represent differences between studies in the percentage of horses that were alive/performing as specified. Note that mortality is highest in the first 100 days post-operatively; horses that have survived to 6 months are therefore at lower risk than horses that have recovered from surgery/survived to hospital discharge.

### **Factors that affect the prognosis after surgery**

The horse's prognosis (likely outcome) after surgery is influenced by the type of colic and by how ill the horse was when it arrived at the referral hospital. Figure 5 shows factors that are associated with a better outcome. All of these factors are affected by the amount of time that elapses between the onset of signs and referral. Therefore, you may be able to improve the prognosis of a horse with critical colic by being prepared. There is more information about this in our article 'Colic: The decision to refer'.

Note that, in general, the prognosis is not affected by the horse's age.



Outcome is also influenced by type of colic – your veterinary team can advise you about the likelihood of a good outcome in any particular case

*Figure 5. Factors that affect post-operative prognosis in colic cases*

### **Post-operative complications**

Figure 6 shows the incidence of complications after colic surgery (post-operative complications) in a large study of horses treated at Liverpool Vet School. Of these, further bouts of colic were the most frequent, affecting 48% of horses that were discharged from the hospital. However, the risk of this event declined rapidly as time passed following discharge. The risk of post-operative colic was increased in horses that crib-bite or wind-suck, and decreased if the horse was kept at pasture prior to surgery.

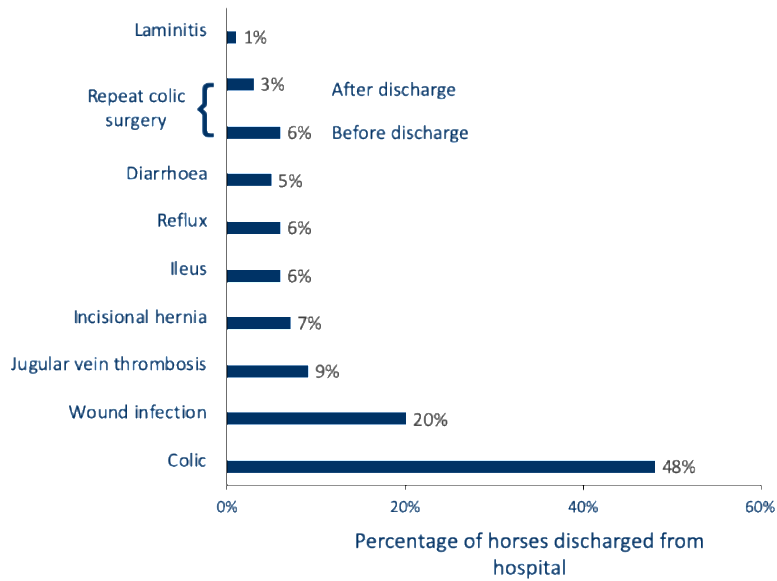


Figure 6. Frequency of complications after colic surgery

### Post-operative recovery

The post-operative recovery time varies depending on the surgeon's preference, the details of the case, and the occurrence of any post-operative complications. On average, you can expect the horse to be ready to restart exercise 3–6 months after hospital discharge if there are no complications (Figure 7).

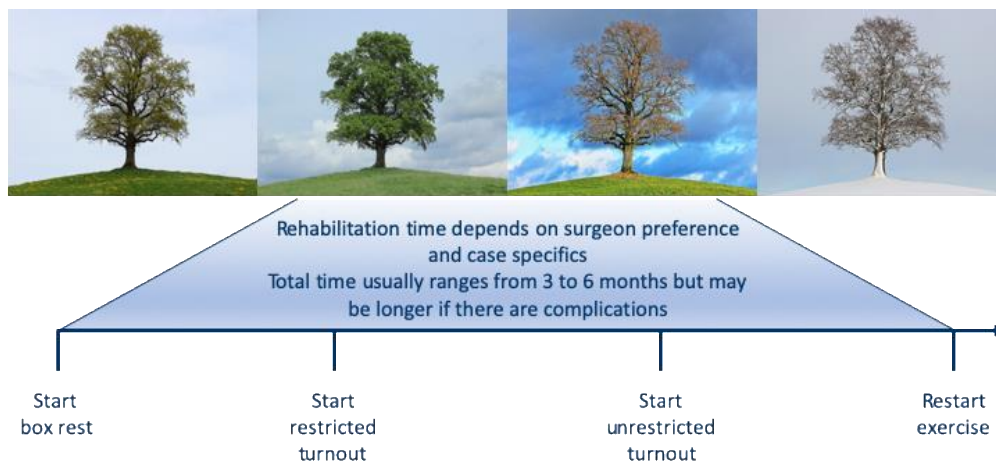


Figure 7. Estimated recovery time for surgical colic that has no post-operative complications

Other articles in this series discuss decision-making ('Colic: The decision to refer') and what may/may not be covered by your insurance ('Colic: Costs and insurance cover'). In addition, you can find more information about what happens after referral on The [British Horse Society's](https://www.britisheveterinarysociety.org/) website.

*This newsletter was written by the Colic Team (John Burford, Janet Douglas, Gary England, Sarah Freeman) at the School of Veterinary Medicine and Science at the University of Nottingham. The newsletter forms part of our practice's commitment as a Vet REACT Colic Champion. The REACT Now to Beat Colic campaign, which is coordinated and funded by the School of Veterinary Medicine and Science at the University of Nottingham and The British Horse Society, aims to help horse owners to combat the life-threatening condition of colic. The REACT resources are based on research funded by the University of Nottingham and World Horse Welfare. Other materials available as part of this campaign include practice talks, Facebook posts, and free REACT factsheets and mini-guides.*