

# The Role of the Equine Vet in Responsible Anthelmintic Use and Control of Small Strongyles

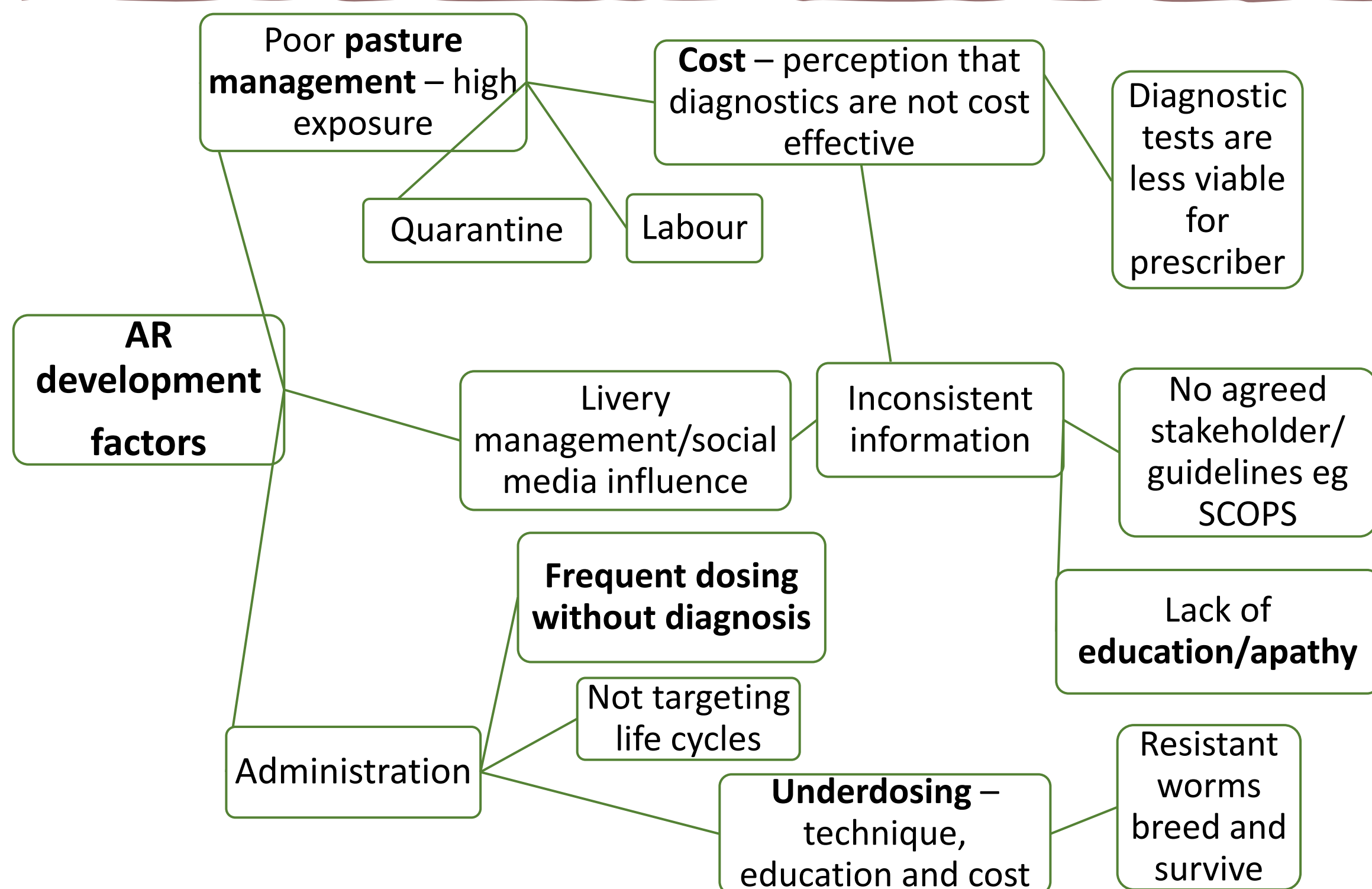
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## The Role of the Equine Vet

Anthelmintic resistance (AR) is a heritable, irreversible loss of anthelmintic sensitivity by altered genetics, transport or metabolism within a parasite. Widespread strongyle AR to three major anthelmintic groups has resulted from frequent rotational anthelmintic exposure<sup>1</sup>. This alters the role of the first-opinion equine vet to increase **surveillance**, guidance of **targeted control** and **owner education** to increase and encourage responsible anthelmintic use.

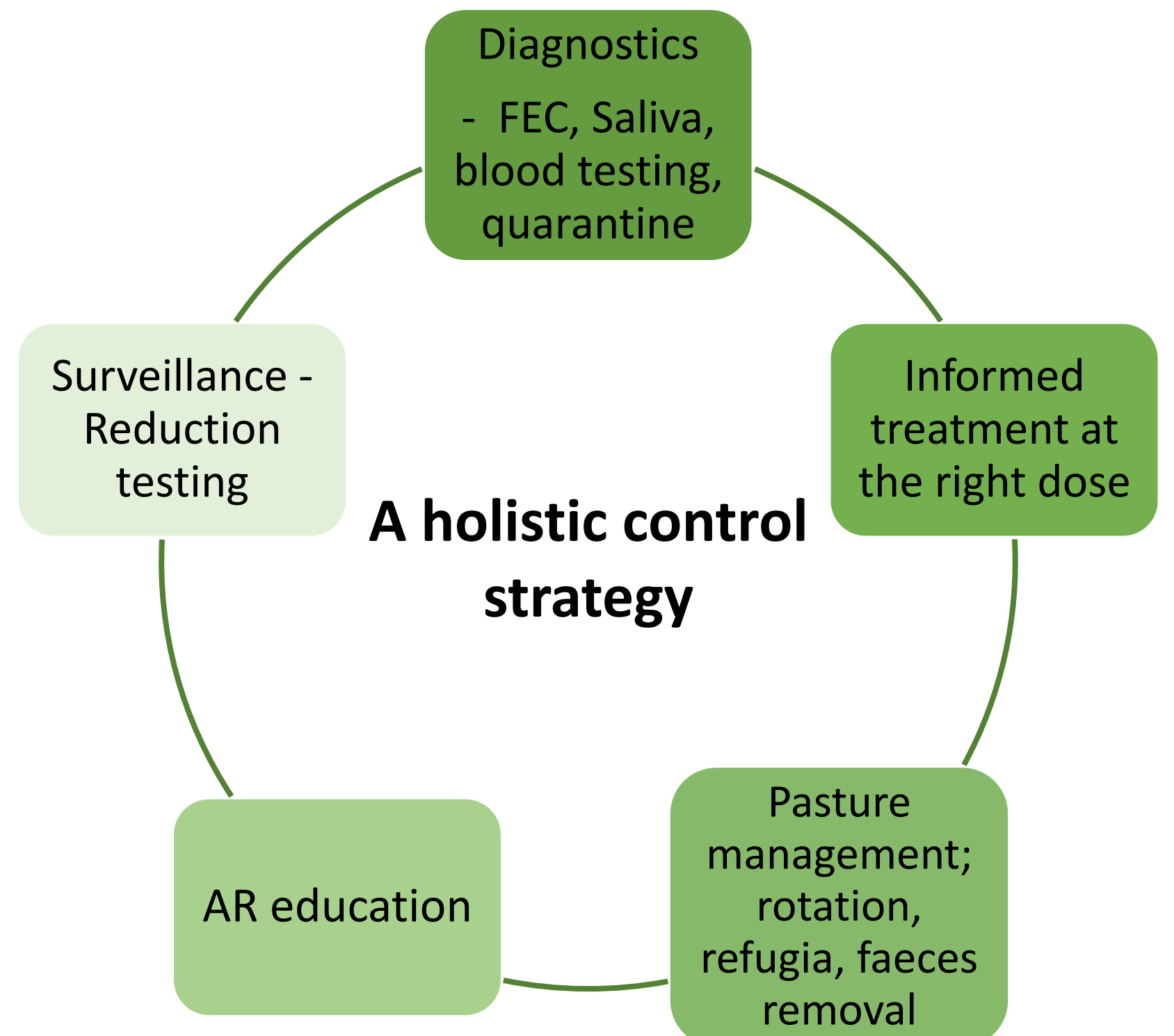
## Clinical significance of small strongyle resistance

All horses are exposed to parasites, with small strongyles being the most pathogenic<sup>2</sup>. AR threatens protection against severe intestinal syndromes for example, Cyathostomiasis. This occurs following a synchronised, mass emergence of strongyles from their encysted L3 stage presenting as diarrhoea, colitis and colic due to mucosal disruption. A 50% mortality rate means untreatable burdens present a wide-reaching welfare and economic threat to the equine industry<sup>3</sup>.



## Education and communication

Education is a major barrier to strategic control<sup>4</sup> due to social media's heavy influence<sup>5</sup>. There is ample scope for vets to engage with owners when moving away from traditional rotational methods due to their knowledge and existing client relationship. AR selection pressures should underpin communication including environmental management to reduce exposure (e.g. refugia- dilute resistance) and accurate dosing based on bodyweight estimation<sup>6</sup> to avoid resistant parasite survival. Owners must also understand to not withhold treatment if diagnostics indicate a raised burden as this risks welfare.



## Testing

New serology ELISA tests detect antibodies against selected antigens. This allows assessment of the burden to assist vets in risk based treatment. However, this is not specifically for the encysted stage<sup>6</sup>.

**68%** were not aware of FEC reduction tests<sup>6</sup> - rarely recommended by vets<sup>4</sup>.

Targeted strategies reduced anthelmintic use by **75%**<sup>6</sup>.

Fenbendazole resistance is in **82%** of UK stables<sup>6</sup>.

## The future role of the vet; could anthelmintics become prescription-only?

With no new anthelmintic treatments expected imminently, current anthelmintic efficacy must be preserved. Denmark was first to introduce legislative prescription-only anthelmintics in 1999, consequently seeing a significant treatment reduction<sup>1</sup>. This ensures the vet a central role in the link between treatment following parasitological diagnosis, which is uncommon in the UK<sup>7</sup>. UK anthelmintics are POM-VPS however POM legislation was implemented in the EU from 2022<sup>8</sup>. This may add barriers e.g. higher cost<sup>4</sup> but would ensure diagnostic based treatment as outlined in the Animal Welfare Act 2006<sup>8</sup> and considerably increased surveillance<sup>1</sup>.

References:

