

The UK ruminant antibiotic stewardship roadmap



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The UK ruminant antibiotic stewardship roadmap is the culmination of a major collaborative initiative which set out to help the UK ruminant sector prove and improve responsible antibiotic use, while protecting animal health and welfare, maintaining public confidence and safeguarding market access.

In the course of this work, the UK ruminant sector has come together to co-develop the roadmap which has:

1. Identified how to further promote and demonstrate responsible antibiotic stewardship (ABS) at UK ruminant farm-level to drive progress and enhance animal health and welfare.
2. Co-designed how best to collate and report sufficient evidence of antibiotic usage (ABU) at UK national level to satisfy both customers and authorities.

This document provides a summary of the research report. The full report is available at:

RCVS Knowledge (2026) ***UK ruminant antibiotic stewardship roadmap report***. Available at: rcvsknowledge.org/ruminant-roadmap. [doi:10.18849/RASRR.2026.983641](https://doi.org/10.18849/RASRR.2026.983641). (Accessed: xxx date)

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Why does this matter?

Protecting the effectiveness of antibiotics is a responsibility that spans both human and animal health. Responsible use helps us to protect animal health and welfare, safeguards the effectiveness of the medicines the farming sector depends on, and underpins the reputation of UK farming, which is essential to trade.

The UK ruminant sector has made substantial voluntary progress on ABS to date, which indicates antibiotic use remains relatively low in many systems. However, without robust national usage data, we can't consistently demonstrate that progress – or see clearly where further improvement is needed. As a result, the sector risks being defined by what it cannot demonstrate rather than by what it has achieved.

Our wider context is also changing, with antimicrobial resistance representing a growing global challenge, while expectations from consumers, policymakers and trading partners have been evolving. Evidence and accountability increasingly shape sector credibility alongside health, welfare and production outcomes. If UK ruminant farming believes responsible antibiotic use is one of its strengths, it needs the evidence to substantiate that claim. Equally, if the evidence identifies areas where improvement is needed, the sector needs to act on them.

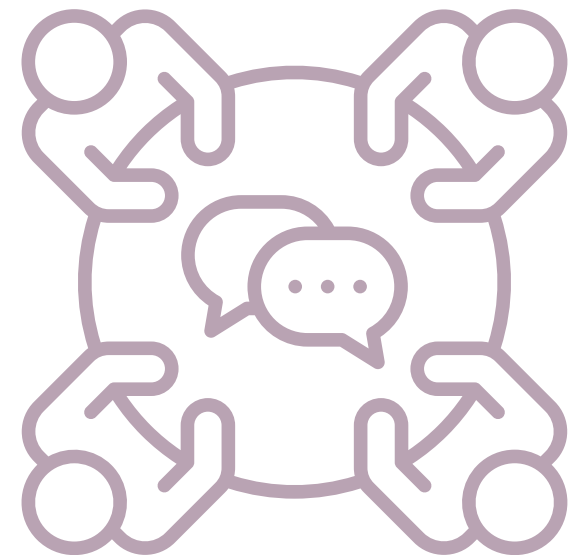
Without concerted effort and action our credibility, public confidence, market access, animal health and welfare, and medicine availability are all at risk.

A collaborative approach

The recommendations put forward in the roadmap are the result of a collaborative process of co-design which takes into consideration the perspectives of stakeholders across all ruminant sectors and all areas of the UK. Our thanks go to the more than **560** individuals who generously contributed their time, expertise and perspectives throughout the research and roadmap development process.

An extensive programme of mixed-methods research was led by RCVS Knowledge in partnership with the ruminant ABS roadmap steering group and Royal Veterinary College researchers representing the AMAST (AMR in Agrifood Systems Transdisciplinary) Network. This included an evidence review which examined how ABU data are recorded and used, and what is needed to strengthen ABS while safeguarding animal health and welfare and market access.

Stakeholder engagement included discussions with sector experts, a nationwide survey, interviews and focus groups involving farmers, veterinarians, industry representatives and policymakers.





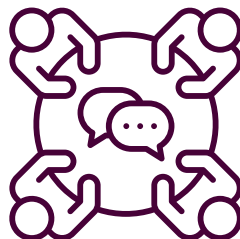
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interviews



73

focus groups



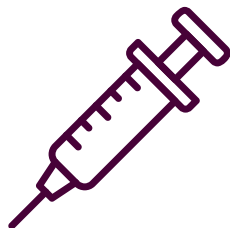
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summit



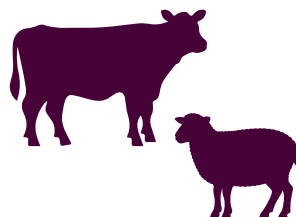
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survey - vets



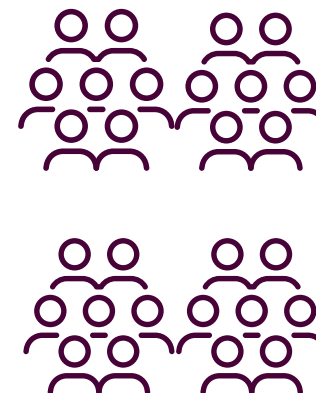
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survey - others



199

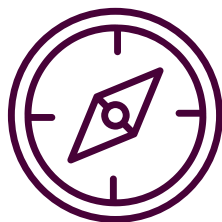
survey - farmers



Collective input from

561

people



25

steering group

*note that people may have contributed in multiple ways and therefore there may be some overlap.

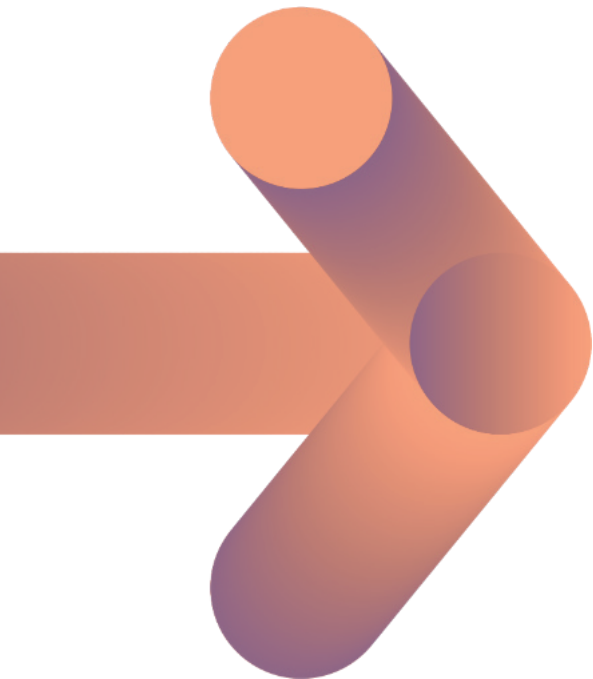
The work identified challenges around data ownership, confidentiality, leadership and implementation, alongside strong appetite for practical solutions that support responsible ABU and deliver value to farmers, veterinarians and the wider supply chain.

The research findings were presented at the UK ruminant ABS roadmap summit on 30 June 2026. Leaders and representatives from across the sector used five questions to turn evidence into action:

- **How can the sector unite across the UK?**
- **How can data collection be made practical and useful?**
- **Who should lead and support implementation?**
- **How can concerns around data sharing be addressed?**
- **How can responsible antimicrobial use best be demonstrated?**

Engagement throughout the research and summit showed growing recognition that the time is right for a coordinated approach. The diverse perspectives captured through this process have helped build a shared understanding of the challenges and opportunities, making the roadmap evidence-based and fit for purpose.

The roadmap is stronger because farmers, veterinarians, industry representatives, policymakers, researchers and many others shared their expertise and experience of delivering change on the ground.



**The time is right for a
coordinated approach.**

Key findings

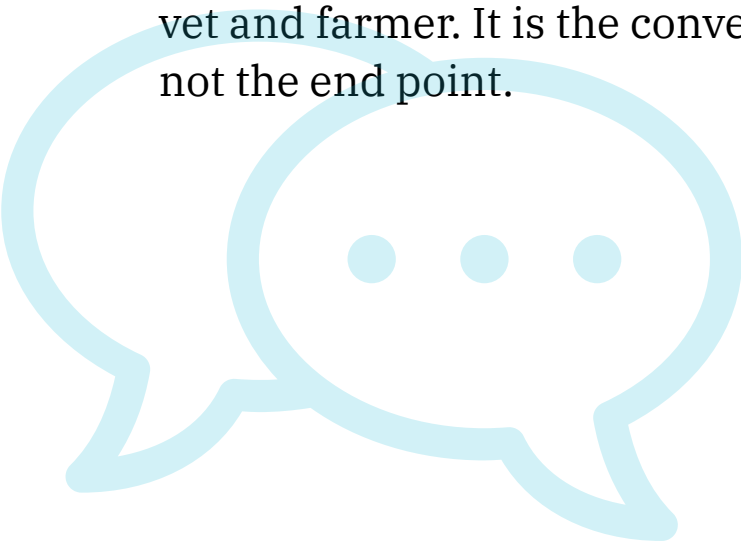
The research findings show a sector that agrees on the destination but has not yet agreed the exact route. There is genuine consensus that responsible antibiotic use should be demonstrated, and that vet-held data reconciled with animal numbers at an annual visit is the most credible foundation for this.

The number serves the conversation, not the target.

It is the vet–farmer conversation, not the number in isolation, that changes practice. An antibiotic usage figure has little value in isolation, but its worth lies almost entirely in the contextual discussion it prompts between vet and farmer. It is the conversation starter, not the end point.

Vets see themselves as trusted advisors and advocates, not enforcers.

The role of the vet is advisory, and being cast as the ‘policeman of the state’ for antibiotic use would undermine the very trust that lets them support and influence farmers. Vets walk a delicate tightrope between being a private business, a regulated professional with welfare obligations, and a confidant to the farmer. The trusted vet-farmer relationship is the real engine of behaviour change and should be protected.



Transparency on supply of antibiotics is an important enabler.

For vets to be accountable for antibiotic stewardship on farms under their care, they need to have sight of the full dispensing history and be supported by better systems for reporting and investigating illegal supply. The aim should be visibility, rather than eliminating multiple prescribers that might be legitimate and are unlikely to be prevented.

Fragmented leadership, different systems and competing requirements have all been part of the challenge.

A workable solution depends on the whole ruminant sector – farmers, vets, industry, processors, retailers, policymakers and regulators – getting behind a coordinated approach but also playing their part in delivering it.



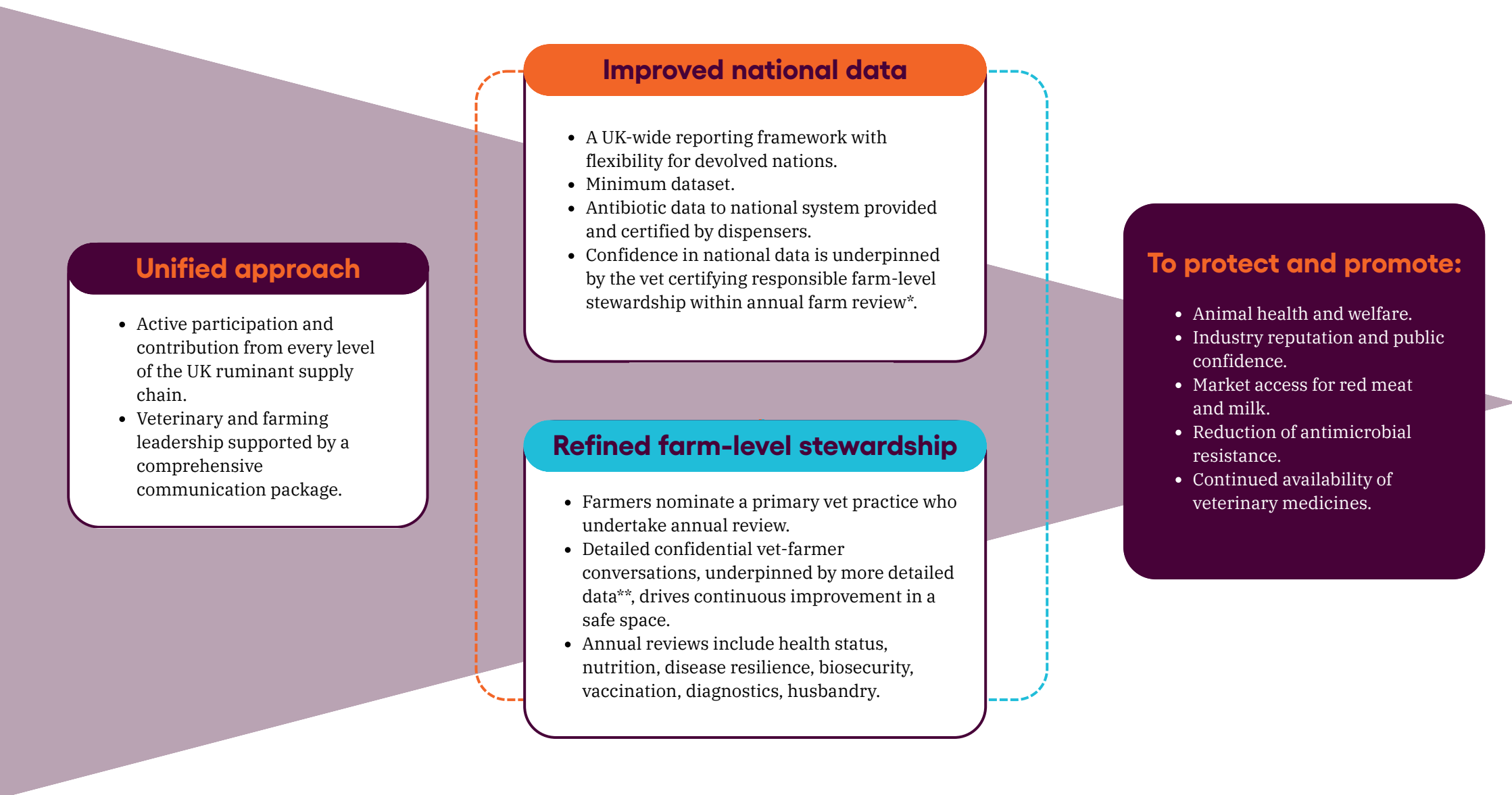
What the roadmap recommends

The roadmap sets a clear direction for strengthening evidence, collaboration and continuous improvement, with key recommendations to:

- Develop a UK-wide minimum dataset and national reporting framework with flexibility for devolved nations.
- Use anonymised AMU data supplied by dispensing veterinary practices and authorised specialist veterinary medicine retailers.
- Support annual, veterinary-led farm reviews based on trusted and confidential farmer-veterinarian conversations, underpinned by more detailed data.
- Use those reviews to support continuous improvement in disease resilience, biosecurity, vaccination, diagnostics and husbandry.



Fig. 1 - Ruminant roadmap summary



* See the ruminant roadmap pathway diagram

** See the data and medicines workflow

National ABU data collection, reporting and governance

What needs to happen	Identified actions	Who	Time	What does success look like
Every vet/practice/ ‘authorised specialist veterinary medicine retailer’ is responsible for reporting dispensed medicine/antibiotic data linked to enterprise identifiers – this could be either directly from the practice management system (PMS) at practice-level or group-level or via intermediary data management system.	To be made mandatory via Veterinary Medicines Regulations (VMRs) with enforcement and associated RCVS (Royal College of Veterinary Surgeons) action.	Veterinary Medicines Directorate (VMD) working with Department for Environment, Food and Rural Affairs (DEFRA), national Chief Veterinary Officers (CVOs) and RCVS.	Start immediately, enforce as soon as systems are in place, continue indefinitely.	Reporting of practice or ‘authorised specialist veterinary medicine retailer’ -derived farm-level medicine/antibiotics dispensed is mandated and enforced. UK-wide framework with flexibility for devolved nations.
	Each dispenser certifies that they have reported all medicines/antibiotics dispensed.	Vet practices/ authorised specialist veterinary medicine retailer.		
Each livestock enterprise, regardless of size, must have a nominated primary vet practice who undertakes annual vet-farm review and uploads livestock numbers (where not captured via the British Cattle Movement Service (BCMS)). Each enterprise must share unique identifier when purchasing medicines/antibiotics.	Enforcement (arranged in whatever way appropriate for devolved nations).	DEFRA - e.g. via Pathway and devolved equivalents, farmers.		Ruminant Antimicrobial Use (AMU) data reporting is embedded within government policy, and the National Action Plans, UK Veterinary Antimicrobial Resistance and Sales Surveillance (VARSS) and Responsible Use of Medicines in Agriculture Alliance (RUMA Agriculture) TTF Report.
	Primary vets certify that they have received collated data (D3) and undertaken the annual review (which includes a conversation about the overall medicine/antibiotic use).	Primary vets and farm enterprises.		

What needs to happen	Identified actions	Who	Time	What does success look like
Create “Medicine Hub 2.0” (an independent repository where data is collated and processed as in figure 2).	Identify the minimum data requirements for: - Input from practice and ‘authorised specialist veterinary medicine retailer’ systems. - Output of national consolidated aggregated data. - Collated enterprise-level figure to go back to primary vet. - Anonymised benchmarking data to add context to vet-farm review. It should • include all Prescription Only Medicine – Veterinarian (POM-Vs) at the outset (all antibiotics as an absolute minimum) • work for other veterinary medicines in the future (at which point it should include Suitably Qualified Person (SQP) retailers). • Operate in real time as much as possible (e.g. monthly uploads)	A technical working group of the Ruminant Roadmap steering group which is UK-wide, cross-ruminant, including representatives of all stakeholders	Short term.	Data and system requirements are clearly defined Data flow is working as on Fig 2 – The ruminant roadmap pathway diagram.
	Deliver and operationalise the system identified above.	Tendered data system provider/s or Agriculture and Horticulture Development Board (AHDB), (to be decided).	Medium term	

What needs to happen	Identified actions	Who	Time	What does success look like
Secure funding and support for implementation.	Government to lead on securing a system for set-up and ongoing costs.	VMD working with DEFRA and national CVOs with input from relevant stakeholders. Potential contributors could include government, livestock sectors, levy bodies, veterinary and pharmaceutical organisations, processors, retailers, assurance schemes and other beneficiaries of the data.	Begin immediately, continue indefinitely	Adequate funding available to deliver required systems
All AMU data to be validated at enterprise level.	All vet practices/ ‘authorised specialist veterinary medicine retailers’ are responsible for reporting dispensing data linked to enterprise identifier (D1, D2).	All vet practices/ ‘authorised specialist veterinary medicine retailers’ supplying medicines to farmers	As soon as systems are in place, continue indefinitely	Quantifiable level of validation for national reporting
	“Medicine Hub 2.0” is responsible for supplying D3 collated figure back to primary vet.	“Medicine Hub 2.0”		
	Primary vet is responsible for supplying livestock numbers to “Medicine Hub 2.0” on annual basis and discussing D3 at the annual review. The vet provides certification to indicate that the annual review has taken place and that the collated figure (D3) was discussed and agreed to be correct by the farmer.	Primary vets and farmers		

Stewardship, benchmarking and data-driven improvement

What needs to happen	Identified actions	Who	Time	What does success look like
Ongoing improvements in antimicrobial use and stewardship at a farm level and identification of other ways to demonstrate responsible use.	All farms will undertake active health planning with their primary vet practice, which will include actions to improve antimicrobial stewardship. Including: • Nutrition • Breeding • Vaccine use • Anthelmintic use • Pain relief • Disease resilience • Biosecurity.	Farmer and primary vet practice	As soon as systems are in place, continue indefinitely.	Reduction in Antimicrobial Resistance (AMR) in food production systems. Increased evidence of preventative medicine.
	The farmer nominated primary practice will be responsible for active health planning, emergency care, annual review & supplying livestock numbers to “Medicine Hub 2.0” on annual basis.			
	The farm level AMU figure (D3) is specifically used to drive stewardship conversations between the vet and farmer at the annual farm review. The anonymised comparison data published by “Medicine Hub 2.0” provides the context against which this figure can be benchmarked.	“Medicine Hub 2.0”		

What needs to happen	Identified actions	Who	Time	What does success look like
Ongoing improvements in antimicrobial use and stewardship at a farm level and identification of other ways to demonstrate responsible use (continued from previous page).	Improve and increase participation in training programmes for vets, farmers and students on safe and responsible medicines use (including residues). This should be accredited and include regular revalidation.	Education and CPD providers to provide good training. Pharmaceutical manufacturers to engage with support/via pack QR codes.	As soon as systems are in place, continue indefinitely.	Increased number of vets and farmers completing training.
	Improve engagement in AMR surveillance programmes.	Partnership between VMD, Food Standards Agency (FSA), veterinary and agricultural leaders		Increased engagement in AMR surveillance programmes.

Market access, transparency and external assurance

What needs to happen	Identified actions	Who	Time	What does success look like
Demonstrate the value to farmers and vets of improved data collection for: 1.National reporting and benchmarking 2.Access to export market and utilising the fifth quarter 3.Underpinning the farmer-vet conversation 4.Evidence-informed decision-making 5.Return on investment of preventative medicine	Create a cohesive industry communications plan and collaborate across industry to implement this Use data and case examples to demonstrate benefits.	RUMA Agriculture with veterinary and industry associations including levy boards, meat processors and trade bodies	Start immediately, continue indefinitely.	Increased engagement with data collection, reporting and benchmarking systems, with evidence that farmers and vets are using data to support herd/flock health planning and antimicrobial stewardship.
Demonstrate responsible ABU externally.	Create a cohesive industry comms plan and collaborate across industry to implement this.	RUMA Agriculture with veterinary and industry associations including levy boards	Start immediately, continue indefinitely	Consumer confidence is maintained or improved

Fig. 2 Ruminant roadmap data and medicines workflow

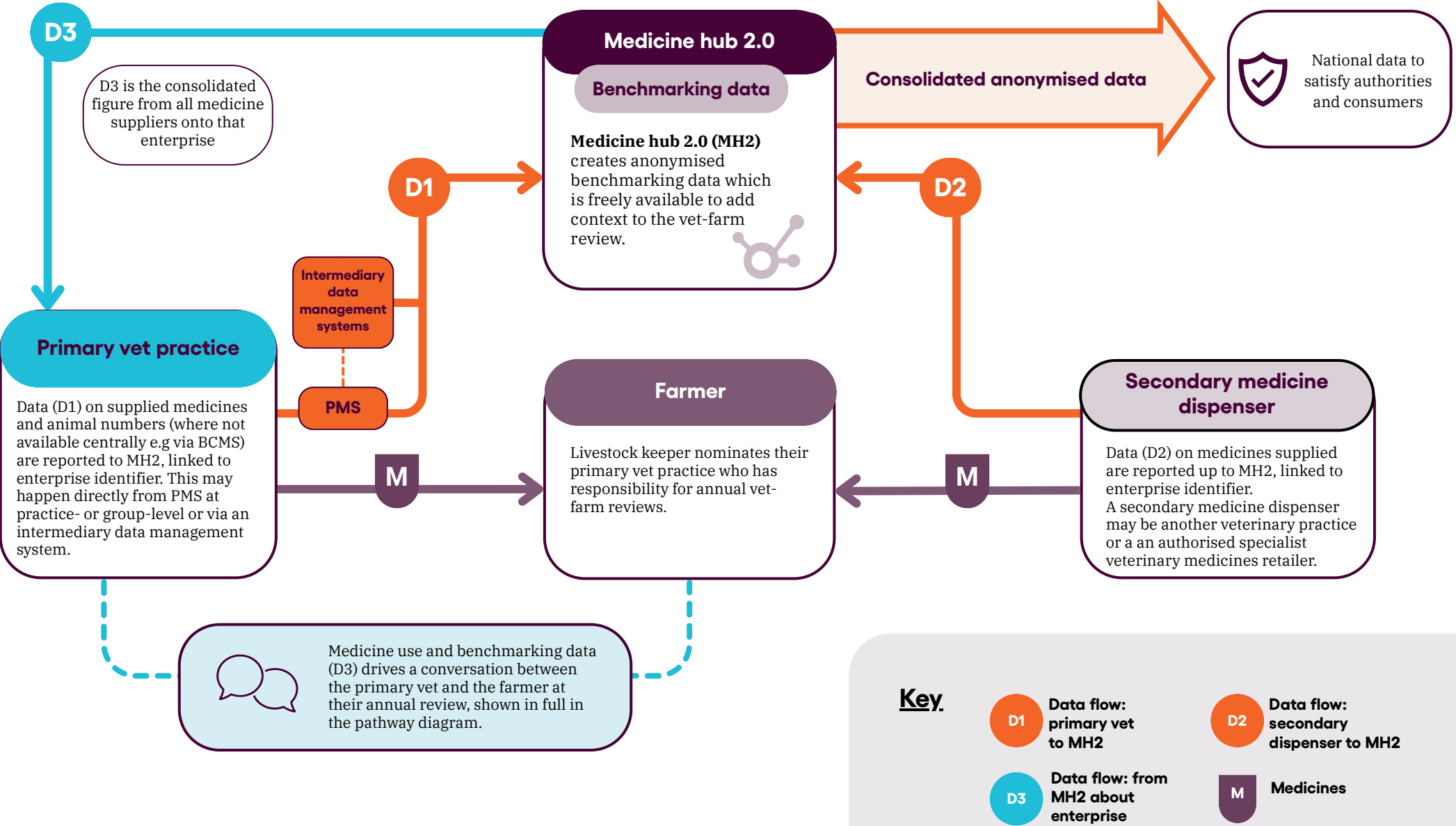


Fig. 3 Ruminant roadmap pathway for reporting and stewardship

- 1** Each livestock enterprise, regardless of size, nominates a primary vet practice who undertakes annual vet-farm review and is responsible for emergency vet care on farm.
- 2** Primary vet practices supply data (D1) on medicines and livestock numbers (where not available centrally via BCMS) to Medicine Hub 2.0, linked to enterprise identifier. This may happen directly from PMS at practice- or group-level or via an intermediary data management system.
- 3** Other medicine dispenser/s supply data (D2) on medicines to Medicine Hub 2.0, linked to enterprise identifier. Other medicine dispensers may include other veterinary practices or a pharmacies.
- 4** Primary vet practice arranges annual farm review and checks Medicine Hub 2.0 for collated figure (D3) linked to enterprise identifier that is already calculated and based on the above. This informs the conversation between the primary vet and farmer.
- 5** Separately Medicine Hub 2.0 uses all collated data to calculate the consolidated anonymised figures and to publish anonymised benchmarking data which is made freely available for all.



Each enterprise must:

- Have a nominated vet practice.
- Have an annual vet-farm review.
- Keep their primary vet up to date with livestock numbers.
- Share their unique enterprise identifier every time medicines are dispensed.

Every vet/practice/authorised specialist veterinary medicines retailer is responsible for uploading dispensed antibiotic data linked to enterprise identifiers. This could be either directly from PMS at practice-level or group-level or via an intermediary data management system.

Primary vet practices are responsible for uploading livestock numbers (where not available centrally e.g via BCMS). They are also responsible for annual reviews and emergency vet care on farm.

Medicine Hub 2.0 is responsible for:

- Calculating the national consolidated anonymised figures.
- Making the collated antibiotic figure for each enterprise available to the primary vet practice to inform the annual vet-farm review.
- Publicising anonymised benchmarking data.

Why support the roadmap?

Much time and energy have been devoted to identifying the challenges with - and appropriate actions required to - improve and prove responsible ABS in the ruminant sector. The focus for us all now must be to deliver on the recommendations of the roadmap, effecting change through leadership, coordination and a willingness to work together.

Responsibility must be shared across farmers, veterinarians, industry, processors, retailers, policymakers and regulators. Veterinarians will lead in evidencing and supporting stewardship, but lasting success requires active participation across the ruminant supply chain to maintain animal health and welfare, protect public trust and support the sector's future sustainability.



Read the roadmap, share it with your networks and discuss what it means for your organisation and the wider sector.

Get in touch if you or your organisation can support the implementation of the roadmap. We have established a strong foundation for collective action and the job for all of us now is delivery. Contact info@rcvsknowledge.org

Support from the sector



Any approach to measuring antibiotic use must work for UK reporting and satisfy our EU trading partners. The UK ruminant antibiotic stewardship roadmap offers a real opportunity to achieve this. AHWNI warmly welcomes the roadmap and the clear direction it gives towards evidencing responsible antibiotic use through robust data collection."

Sam Strain, Chief Executive, Animal Health and Welfare NI



As a livestock farmer, I think this UK ruminant ABS roadmap is really important. Following this roadmap will help us prove that our sector deserves it's strong reputation for high animal health and welfare."

Kate Rowell, beef and sheep farmer, vet and Chair of Quality Meat Scotland



From a welsh government point of view, there is a lot in the roadmap that we really like. It's important for us to collaborate and look for solutions that work across the UK, but we like the flexibility for the devolved nations"

Richard Pizzey, Veterinary Advisor, Office of the Chief Veterinary Officer, Welsh Government



Using antibiotics responsibly is something UK livestock farmers take extremely seriously. This Roadmap demonstrates our sector's continued commitment to safeguarding animal health and welfare while reducing reliance on antibiotics wherever possible. Through collaboration across the supply chain, we can build on the significant progress already made and ensure antibiotics remain effective tools for treating disease when animals genuinely need them."

Clare Wise, Chair, NFU Livestock Board

Acknowledgements

This roadmap is the result of a truly collaborative effort, and we thank everyone who contributed to its development.

The three co-chairs have been responsible for the strategic direction and co-production activities:

- Fiona Lovatt (Chair, Sheep Antibiotic Guardian Group and RCVS Knowledge)
- Mark Jelley (Beef farmer and finisher; Chair, Cattle Antibiotic Guardian Group)
- David Black (BCVA President 2025/26).

The project was led and coordinated by RCVS Knowledge, who conceptualised the project, led on the methodology, provided secretariat to arrange meetings, coordinated communications and published the final report and roadmap.

We are grateful to the partnership of the AMAST Network and to its Flexible Fund initiative, supported by UK Research and Innovation (UKRI) which funded this research. The Royal Veterinary College provided vital academic expertise for the robust collation of evidence. RUMA Agriculture has provided expertise and personnel and, together with VMD and AHDB, provided support to the Cattle and Sheep Antibiotic Guardian Groups (CAGG and SAGG).

The support and commitment of everyone involved recognises the vital role of antimicrobial stewardship in protecting animal health and welfare, reducing antimicrobial resistance, maintaining public confidence and industry reputation, safeguarding market access for red meat and dairy products, and helping to preserve the effectiveness of veterinary medicines for future generations.



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