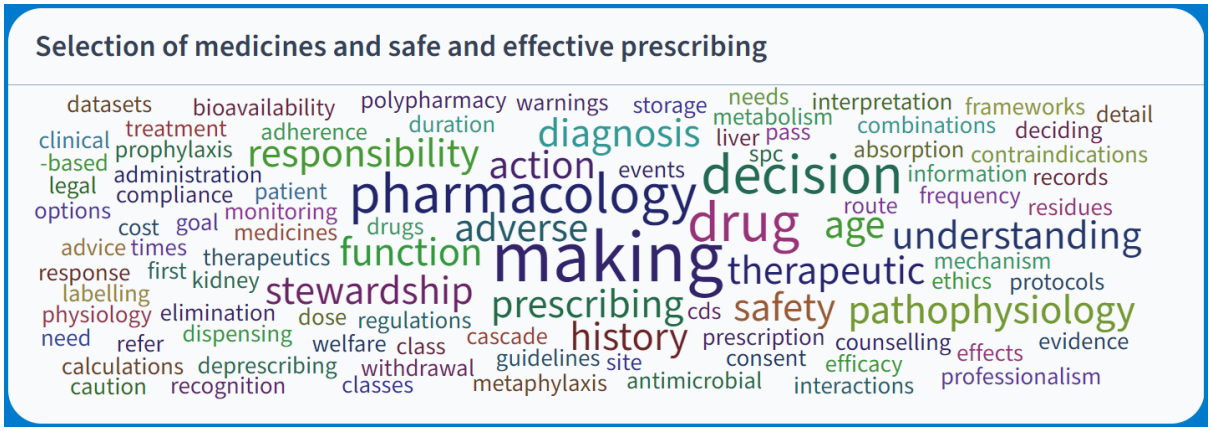
Identification of Educational Milestones and EPAs for Day One Prescribing Competence

This event was organized by Dr Martin Hawes (Senior Lecturer in Veterinary Pharmacology and Therapeutics, School of Veterinary Medicine, University of Surrey).

Medication errors are a leading cause of avoidable harm in patients. The overarching aim of this workshop was to build on existing work in the area of competency-based education to identify Entrustable Professional Activities (EPAs), underlying competencies and educational milestones to improve Day One prescribing competence (the minimum standard required for new graduates). Whilst the focus was on veterinary education, identified competencies are applicable to the development of prescribing skills for all health professionals. In addition, attendees had the opportunity to learn from experts in the fields of competency-based and pharmacology education, gain insight into the experiences of educators from across health professions education, and begin the process of translating prescribing competencies, EPAs and milestones into their own teaching practice.

The event was attended by 41 educators from 11 countries, with delegates coming from the fields of veterinary medicine, medicine, pharmacy and nursing. The workshop consisted of parallel in-person and online streams. The workshop began with talks from 4 speakers to set the scene for the workshop: Dr Kirsten Chaney (Texas A & M University, USA) gave an overview of the development of the Competency Based Veterinary Education (CBVE) framework and described next steps for the initiative; Professor Clare Guilding, (Newcastle University, UK) discussed the International Union of Basic and Clinical Pharmacology (IUPHAR) initiative to identify, define and unpack the core concepts of pharmacology. Professor Arend Werners (St George's University, Grenada) discussed the Day One Competences for prescribing; Dr Helen Hull (University of Portsmouth, UK) described the introduction of EPAs and milestones into the pharmacy degree at the University of Portsmouth.

Participants began by creating a word cloud of words and phrases associated with prescribing, which provided a prompt throughout the day to support work in breakout groups.



In the first part of the meeting, participants worked in small groups to identify subcompetencies for appropriate selection of medicines and safe and effective prescribing, using program-level competencies within EPA3 (create a treatment plan) of the CBVE framework as a starting point. Participants identified in excess of 100 subcompetencies. In the second part of the day, participants began the process of sequencing the longitudinal development for the subcompetencies across the veterinary programme.

There was a variety of levels of experience with competency-based education at the start of the day. Those with limited knowledge appreciated the opportunity to learn about the CBVE framework as an exemplar tool:

> *"I was a little slow getting my head around the competency based veterinary education model and the interconnection between EPAs, competencies and milestones but when I finally got there it made a lot of sense! I now have a much better understanding of the principles of curriculum design and development – it is all so much more logical than I thought!"*

> *"I received a terrific perspective on the current state of veterinary student pharmacology education."*

One of the challenges facing educators is placing basic sciences in a competency-based curriculum. The workshop produced some suggestions for pharmacology:

> *"… some good ideas how to incorporate pharmacology concepts to early-stage non-pharmacological student material and re-enforce their learning."*

Participants left with much to think about and were motivated to take action in their own practice.

> *"Looking at the maps made and listening to people I see that there is an issue in how we teach. We focus on the stuff (content) and chunk this and then expect learners to make connections between knowledge, which is often the process for which there is often little clear reward and yet the effectiveness is often based on the ability to make connections in practice which we value. I guess it comes down to the old question about whether we are teaching them to know science or the art of practice."*

> *"I found the parts of the day I attended very stimulating and will certainly take some of the ideas presented forward."*

> *"I learned a lot and left with many ideas for further pedagogic research."*

Outputs from the workshop will support an initiative to review and update previously published Day One pharmacology competencies (Werners and Fajt, 2021). This initiative will not only seek to include input from pharmacology educators, but also input from non-pharmacologists involved in related basic sciences, such as physiology and microbiology, and clinical disciplines that support students' development of knowledge and skills for safe and effective use of medicines. The initiative will move on to map these competencies to the CBVE framework and provided a tool to support curricular design and guide student assessment.

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