

## **An overview of existing guidelines for handling, bleeding, administration and identification techniques**

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The 2005 international consensus meeting on the Harmonisation of the care and use of fish in research made a number of recommendations relating to procedures using fish. These included the need to develop species-specific guidelines, easy access to the latest knowledge and the standardisation of techniques and procedures.

Current guidelines on handling fish, blood sampling, administration of substances and identification techniques were found using a variety of resources (see separate sheet). These were assessed for their emphasis on the need to reduce suffering and improve the welfare of the fish, whether they provided sound guidance on identifying good practice for each technique, and on their relevance to the 2005 “wish list”.

Guidelines largely focus on practical advice relating to conducting techniques but give little indication of which protocols are preferable from a welfare point of view. Handling and identification guidelines mention the potential to cause fish stress, suffering or damage more than bleeding or administration guidelines do.

Valuable information is certainly available and easy to access, but my search did not find any species-specific guidelines on handling, blood sampling, administration of substances or identification methods. As far as I could establish, no author or body has set out standard techniques or protocols for any of these procedures. There is a clear need for more detailed guidance on refining handling and common husbandry and scientific procedures using fish, but it is not clear whether there is sufficient empirical evidence to define best practice at present.