Results

Exercise completion by registrants was 51% (43%–69%). The majority of participants (72%) spent <30 mins viewing each case. Fewer than 20% of participants stated that their knowledge had not changed (variation was associated with the clinical condition).

Example Expert Comment (Scheme director for UKNEQAS General Haematology)

This blood film was made from a sixty-year-old male who, five years ago, had been diagnosed with transfusion-dependent Myelofibrosis. He had recently undergone radiotherapy to the spine and was on hydroxyurea and steroids. The patient was admitted to hospital in an unresponsive state after a fall; he had a head injury and had suffered from a headache and vomiting. A marked hepatosplenomegaly was noted on examination. A CT scan showed a large right-sided, acute subdural haematoma. After receiving two units of blood, the patient was stabilised and was then transferred to the intensive care unit. The CT scan demonstrated that the haematoma had re-accumulated and there was also brain stem compression.

75% of participants offered a diagnosis of either chronic granulocytic leukaemia (27%) or a myeloproliferative/myelodysplastic disorder (58%), with 68% of these going for myelodysplasia. The white cell count worsened the next day, over 100 (x10^9/L), and this was interpreted as myelodysplasia with a leukemoid response, due to the effects of trauma, surgery and high dose corticosteroid therapy.

Phase 1: Of 221 registered participants, 153 (69%) returned reports, 132 also completed reflective feedback on the morphology cases ranging in length from 1 line to 3 pages (majority 1 to 2 paragraphs). The majority of participants (72%) spent <30 mins reviewing each morphology case presented, but considerable additional time on background reading around the clinical condition. Additional comments from 21% were used to develop the scheme format and presentation layout for the images. Comments from phase 1 included the request that optical magnifications appear with the images and for streamlining of the clinical data.

Phase 2: 115 (51%) participants returned reports with 107 also providing reflective feedback. Additional comments received from 28% were constructive and appreciative of the pilot scheme. Comments from phase 2 commended changes made following phase 1 whilst participants stressed the usefulness of images for teaching and education purposes, particularly for rare haematological cases seen less frequently in some smaller laboratories.

Phase 4: Of the 412 individual participants registered: 175 (50%) and most of the participants (80%) spent <30 mins viewing each morphology case presented. In general, participants commented that the images and staining for both cases were good and that the digital images demonstrated all the relevant features.

Phase 5: 389 participants were registered as active and 198 (51%) returned the reflective reports sheets. Most participants spent <30 mins viewing each morphology case. Many noted that the nuclear detail and vacuolation were clear in high power photographs and high magnification. In general, >60% commented that the images and staining for both cases were good and that the digital images demonstrated the relevant features.

Feedback was used to develop the scheme format; optical magnifications now appear with the images and the clinical data streamlined. Image quality improved and criticism of red cell images used to progress the project. General comments from participants included:

- Raised awareness of Haematology.
- Improved understanding of clinical features and laboratory results (e.g. markers, cytogenetics, chemistry).
- Improved understanding of specific morphology (significance of granulation or nuclear appearance).
- Participants stressed the usefulness of images for teaching, particularly for rare haematological cases seen less frequently in some laboratories.

Future Direction

Future development by UK NEQAS (H) include a revised protocol for reflective reporting, introduction of electronic reporting and improved access to viewing software for large images.

The Schemes aim remains one of education, rather than assessment, directed at individuals rather than centres. With the key theme of personal professional development promoting improvement to the quality of haematological morphology this scheme has potential for expansion across the UK and internationally.

Further Information

For further information of the digital image project and for information on General Haematology scheme, visit the UK NEQAS (H) website at www.ukneqas.org.uk.

Acknowledgement

For information on General Haematology Scheme contact UKNEQAS(H) at UK NEQAS (H) office, for information on the digital image project contact University of Manchester and collaboration and to view the digital image library www.marlab.co.uk.