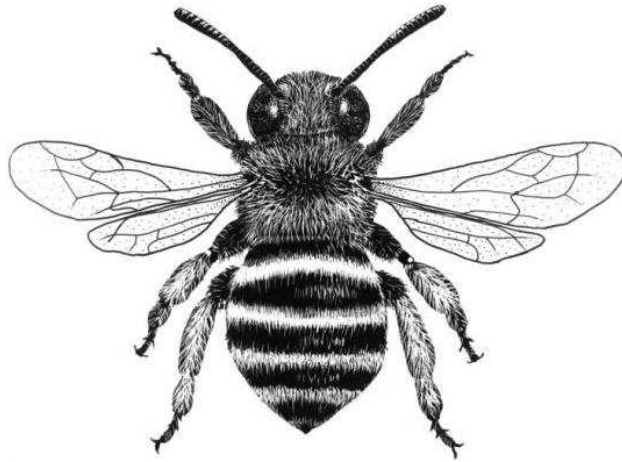


**Annual Quality Review for
Reproductive Science**

2017-2018

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This annual review includes quality information from April 2017 - March 2018. Such reviews are released later in the year to enable collation of all the previous year's information for a complete review.

If participants require more information on any of the areas included in this review, please contact UK NEQAS Reproductive Science directly.

Response to comments by UK NEQAS RS is provided in **BLUE** and responses by Gamete Expert in **GREEN**.

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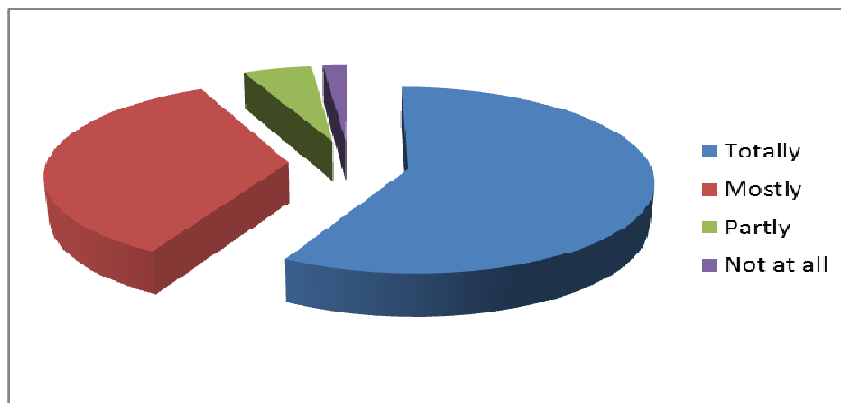
Annual Participants Meeting 2018

Total returns – 69 questionnaires sent, 57 returned.

Comparison with previous years

Year	Attendees	% returns
2018	85	83
2017	116	86
2016	91	82

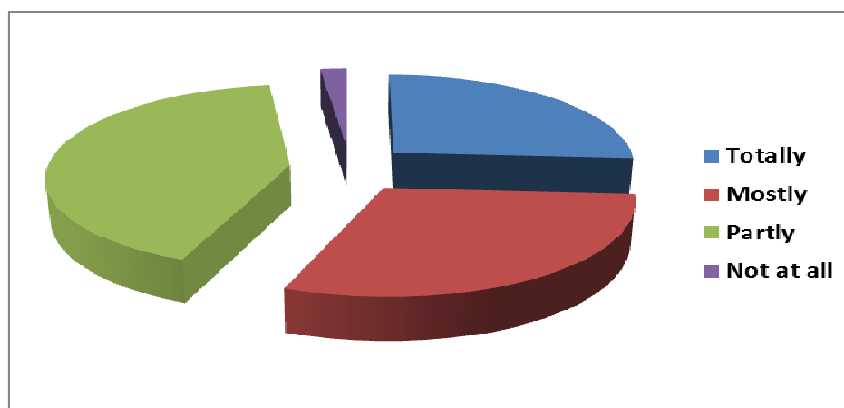
The attendance at the 2018 APM was lower than the previous year. Additionally, of the 59 places that were pre-booked at enrolment / re-enrolment in 2017 only 32 were used.



Graph 1 - Response to how close the APM came to meeting participant expectations

One respondent expected more content pertaining to sperm assessment and NEQAS itself. They felt the topics were interesting, but unsure they learnt anything useful to feedback. All attendees felt that the level of material was pitched correctly.

How useful was the information to influencing patient care?



Graph 2 – How useful information was to influencing patient care

Meeting Aspects

	2018	2017
The presentation of the meeting	8.5	8.9
Pre-meeting information and booking confirmation	8.4	9.1
Registration at the meeting	8.9	9.2
Meeting venue including meals and refreshments	8.7	8.8
Assessment of the meeting as a whole	8.5	8.9

The meeting aspects again scored highly, however they were slightly lower in every category than the previous year.

Comments on the organisation and venue

- I felt the quality of the food was poor i.e. had been cooked long time before/ over cooked.
- Venue good
- The projector stopped working through one talk and the weather caused a few alterations to the order of the presentations but it was worked round really well.
- Cheese and potato pie was the best veggie meal I have had at a meeting ever!!
- Excellent venue and location - good range of talks and presentations
- Very nice food but there was not enough tables/chairs for all participants to sit down in the catering area
 - UK NEQAS RS cater for the number of delegates attending. We were not made aware of any trouble with seating – there was still seating available for the last people arriving to lunch, although not at the same table (this was UK NEQAS staff).

Presentation Content



All presentations were well received this year, none scoring lower than 7.0 (weighted /10). The most highly rated was sperm cryopreservation in wildlife – from wombat to elephant.

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Comments

- All talks excellent
- Good mixture of talks – all relevant but perhaps not in day to day practice.
- Interesting to hear about research
- Very interesting throughout
- A fantastic day thank you
- A really good programme of presentations which was varied and interesting
- I really enjoyed the actual NEQAS updates, found that really useful
- The STP talk was not relevant to the scope of the meeting
- Some notes or a summary would have been useful due to missing the first few speakers due to adverse weather
 - **UK NEQASRS tries to be environmentally friendly. Abstract booklets are emailed to all registered delegates prior to the meeting. We would encourage delegates to print off resources where required.**
- Talks were not really relevant to my profession.
- Felt slightly disorganised this year compared to previous years.
- Meeting ran over time

Additional Comments

- The meeting ran excellently, superbly organised. I was fascinated in the wildlife talk, and the talk 'Err in Human' was another unexpected delight. Talks like these were absolutely fascinating, and an example of interesting topics relating indirectly to the scope of the meeting.
- This was my 1st meeting and I will definitely continue to attend. I found it useful and relevant
- Great food!
- A great meeting, great venue, very helpful staff and happy delegates – thanks! – Liam Whitby (President of UK NEQAS)

Future Subject Suggestions

- Maybe a report on how the various labs do in NEQAS – do certain labs do better? – Life in a top lab – samples / personnel etc.
- More up to date information on ongoing sperm research – there was a lot of lifestyle recommendations at Fertility 2018, so could use some of those studies?
- It would be great to talk about IMSI
- A general overview of what is required to do research in Andrology, for example ethics, consent, considerations of the type of samples and patients, etc.
- Measurement of uncertainty
- Future for Andrology – will it be carried out only by specialist units soon?
- Farming use of IVF
- IQC and ILC, uncertainty of measurement, acceptance testing of consumables and meeting ISO standards
- Laboratory ISO experiences / vitality assessment

Statistics of delegates returning the questionnaire

The majority of delegates were Biomedical Scientists of all grades (20) and embryologists (8). Other delegates included managers/head of laboratory (6) healthcare scientists, associates and andrologists.

Semen Analysis Workshops 2017-2018

Summary

There were 3 workshops offered during this period. All participants felt this was sufficient and each one was fully booked. There were 40 attendees overall and 38 completed the questionnaires.

The availability of training courses over the year was considered acceptable by all participants. The pre-meeting information and organisation was considered excellent or good by 96% of people, and satisfactory by the 1 other participant. Facilities were also rated highly, 93% of delegates answered excellent or good.

The opening lecture and session sizes were considered 'about right' by most delegates, two people felt the opening lecture was too elementary and 1 person felt the groups for motility and morphology were too large. Only 1 person felt there was not enough time to ask questions throughout the workshop.

The meals provided were well received overall (excellent – 29%, good – 63%, satisfactory – 8%).

Delegate Statistics

The majority of delegates were Biomedical Scientists (20). Others included Consultants (microbiology and urology) (4), Associate Practitioners (4), Embryologists (2), Andrologists and Managers.

Positive feedback

- Staff were very helpful and friendly (5)
- The day helped to back up my training and help my confidence (2)
- Thankyou (3)
- Very good course
- Found the morphology 1:1 session v. helpful
- Good facilities we don't have at home
- I enjoy motility analysis and found it helpful processing
- Excellent
- Very good - easy to follow even though I don't have a lot of experience
- The map and directions supplied are excellent although it would be helpful to add that the building is signposted as the Manchester University NHS Foundation Trust to avoid confusion.
- Appreciative of the new beginners
- Really good and engaging day
- Great course

Other feedback

- Would have liked a general Q & A session at end or lunchtime
- Would have liked gloves
- Hand washing facilities would be nice without having to go to the toilet
- It would be great to include some information of microTESE analysis

Management Response

UK NEQAS RS are again pleased with the overall positive feedback.

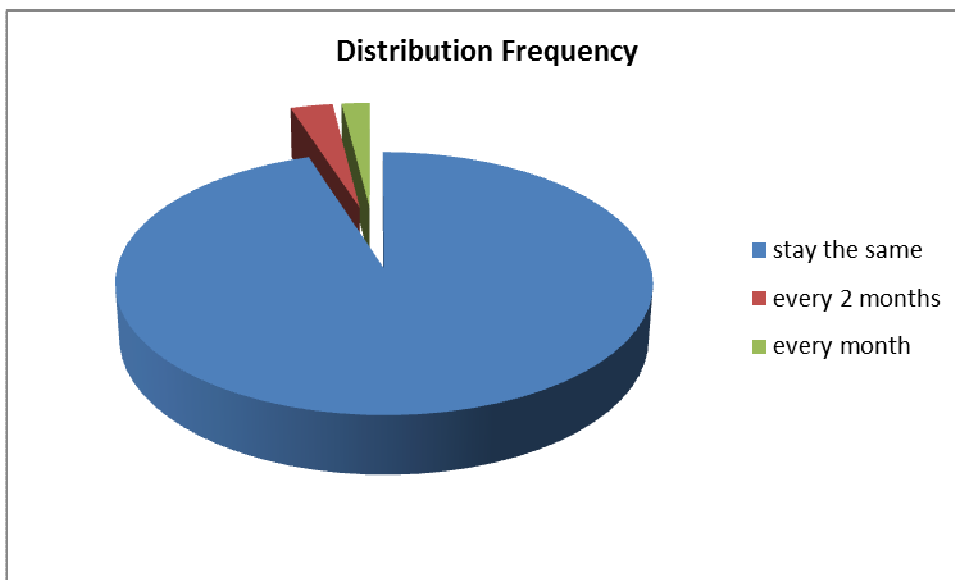
Summary of Andrology Scheme Questionnaire 2017-2018

Response

Year	% returns
2017-2018	62 (168/271)
2016-2017	62 (176/286)
2015-2016	50 (144/290)
2014-2015	48 (140/291)

Frequency of Distributions

Participants would prefer not to increase the frequency of distributions. A reduction in distribution number is not recommended statistically.



Ease of use of the Aspects of the Scheme

Participants reported similar satisfaction (weighted score /10) as the previous 2 years for submitting results, downloading reports and interpreting reports from the UK NEQAS online results and reports website.

	Submission of results	Download of reports	Interpretation
2017-2018	8.3	8.3	6.2
2016-2017	8.1	8.2	6.2
2015-2016	8.0	8.5	6.1

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Comments received included:

- There could be more basic information – the handbook isn't always to hand / explanation on result interpretation / can be simpler / Access to help or advice pages like other NEQAS sites would be useful / ABC grading needs to be clearer / not sure on the stats (15)
- All results on one report would be preferred
- The website is not very user friendly for submitting results
- It would be helpful to have a session on interpretation of graphs at a meeting

Enquiries to the Scheme

There has been a reduction in the number of participants contacting the scheme overall, but an increase in those contacting UK NEQAS RS regarding problems with the samples.

This may be associated with yeast contamination of one sample in this period addressed within the comments and complaints section of this report.

Performance issues have reduced, from 15% to 9%. Of those participants that contacted the scheme, 10% were dissatisfied with the customer service. Four of those commented they had not received a reply to a query.

We were aware of an issue that emails to the repscience@ukneqas.org.uk address may have been misdirected, and would encourage any participant that has not received a reply to contact us again, quoting their participant number in all correspondence.

Contact by the Scheme with Participants

The main reason for contact by the scheme was for performance issues but this has reduced from 23% last year to 16% this year. The two dissatisfied participant comments stated that there was no response from staff and that performance issues are not explained in enough detail and an ongoing finance issue is unresolved.

Ease of use of the Gamete Expert aspects of the Andrology Scheme

Element	2017-2018	2016-2017	2015-2016
Viewing images	6.67	6.91	6.75
Submitting results	8.37	8.1	7.84
Interpreting reports	7.43	7.47	7.06
Supervisor function	8.00	7.98	7.71

The results are very similar to the previous years. There is a slight reduction on the ease of viewing images.

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Comments received included:

- Trust use old PCs and viewing videos can be difficult / network speed insufficient /very easy to use but access can be a problem / Online clips are blocked by our Trust and it is extremely difficult to access them (4)
- It is often difficult to view the motility videos / videos are slow sometimes – they stop and start which causes issues / we have constant issues getting gamete expert to run on our computers at work, very slow (3)
- Would work a lot better if we could download the video clips instead of watching on line.
- Its slow and a bit clunky, not the most user friendly but it does the job.
- The resolution of the morphology images is not clear enough
- Would like to be able to view the results together rather than clicking in and out of individuals results.
- Still don't really understand how the results are interpreted.
- The videos are not easy due to lack of grid (as in the Mackler chamber)
 - **UK NEQAS RS follows guidance in the WHO laboratory manual for the Examination and processing of human semen (2010)**

Other comments on the scheme:

- Need a good measurement tool for individual sperm.
- Staff running the scheme do an excellent job and its often forgotten what goes into making such a scheme. Secondly, some descriptive statement about entries or guidance to interpret would be helpful
- Staff are always very helpful and pleasant when contacting about NEQAS related and general andrology lab enquiries.
- I feel we need to move away from complete consensus results and have the targets set by a consensus of the results from specialist labs only.
- The mathematical data given is tricky to interpret and its even more difficult to tease out corrective or improvement actions.
- Very happy with the service
- Increase of frequency would be appreciated if the total number of samples remained the same
 - **For statistical reasons, the number of samples in a single distribution can not be reduced.**
- We have a questions about motility assessment. 1) In field of view when there is a lot of sperms, does we count a half field and then multiple with 2 or we rewind the recording? 2) In field of view when there is small number of sperms, does we count the sperms which are coming in the field until the and of the recording (or when we finished the counting all the sperms in one field of view? Thank you
 - **Please contact the scheme directly for advice stating you participant number. Alternatively UK NEQAS RS run Workshops throughout the year which may help assessing motility**
- Can you provide an online training for sperm parameters?
- It will be important to state on the application of taxes on foreign customers.
- Sometimes the frames to access the motility don't run so easily. Also after the assessment there are some doubts.
- Programme is very well organized - staff are always helpful and knowledgeable.
- Larger aliquots would be appreciated, we don't have enough of each sample for all members of our team to count the samples.
- Make the reports simpler to understand. Especially the wet preps.
- Excellent scheme, thank you. PVSA would be a great addition.
- the interpretive morphology results between neqas and gamete expert do not always match up they can be green in gamete expert but reduced by neqas

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- Gamete expert need to start to include some new images into the interpretive morphology side as they seem to just recycle the same images. A few curve ball might keep us on our toes more.
- All staff find assessing motility images difficult and quite stressful especially if sample has high concentration of sperm to assess. If staff assigned for that run morphology assessment and waiting on results can be stressful. I would not like to see the distributions get more frequent as we are Pathology/Cytology lab and staff have other duties as well as Andrology. Given staffing numbers decreasing over time and increased workload staff under more pressure.
- Would be good to have a scheme for PVSA
- I have heard nothing following 2017 annual meeting when we were asked to show interest in pilot schemes. Particularly vitality.
 - **The result of this survey was detailed in both the 2016-2017 annual quality review and the Annual Report. Work is ongoing to identify both the technology and a company to enable the scheme.**
- We always have issues with the gamete expert website and would rather go back to the old dvd format or just download the videos
- Not sure it really represents it's users skill mix. Considering andrology is not just performed in tertiary centres and some labs do semen analysis as an add on. As an aside point it is not helping or appropriate that certain UKAS assessors in this field also push the membership of the BAS and then their own private consultancies to help you through the UKAS assessment.
 - Participant contact UKAS
- Semen analysis normal forms on wet sample seem to reached a point where every sample is between 3.9 and 4.5. Even where I get higher or lower I will submit a number nearer 4. Almost pointless exercise.

Motility speed assessment survey

Motility assessment categories	No of labs	Responses (%)	
		True	False
Currently 3 speeds – continue with 3	94	82	18
Currently 3 speeds – change to 4 speeds	54	7	93
Currently 4 speeds – continue with 4	67	43	57
Currently 4 speeds – change to 3 speeds	56	16	84

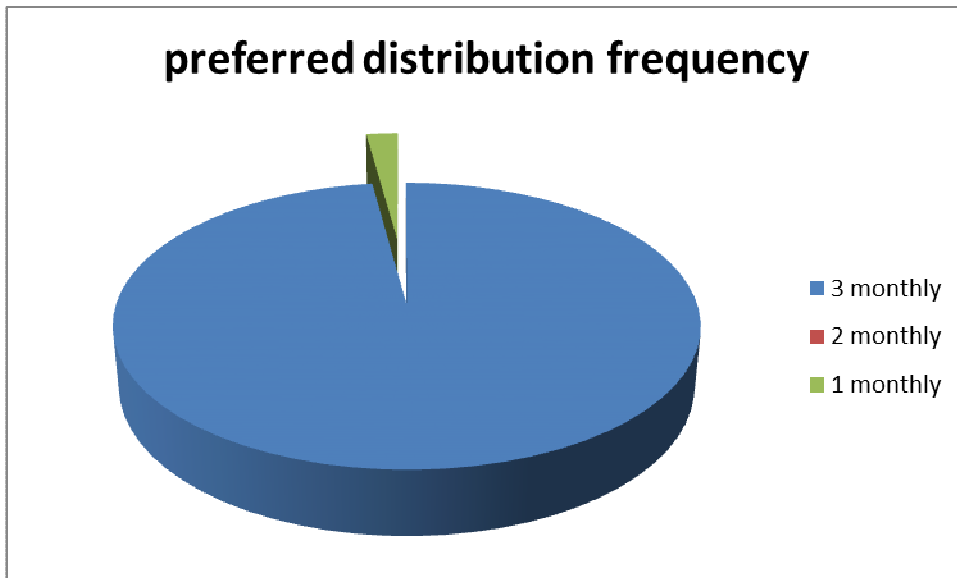
Interpreting the results, the preferred option for motility assessment is the assessment of 3 speeds by 174 respondents (77 participants currently assessing 3 speeds wishing to remain on 3 categories, 50 participants not voting to return to 4, 9 wishing to switch from 4 to 3 and 38 not wanting to continue to report 4).

Comments

- We should stick to WHO criteria (3 speeds) that gives a uniformity among all the clinics around the world / 3 Speeds are good enough / We would like to continue with the 3 speeds as per WHO 2010 (3)
- Divide assessment into A,B,C,D and report as per WHO guidelines Include a comment in the report if the %age of B's is much higher than A's to give clinicians an indication of fertilisation potential.
- It is easy if you assess four to convert to three. It may be more difficult for those that do 3 and wish to retain this to go to 4 for UKNEQAS. I would suggest remaining the same as it follows WHO.
- We currently assess 4 speeds and put these on the report but also Progressive and Total motility with reference ranges next to the latter.
- See the ABA GGP, three speeds is fundamentally flawed.
- We assess 4 speeds in analysis and will continue to do so, however happy to assess 3 for UK NEQAS / analyse 4 speeds but add 2 together to submit (2)
- I would like to remain the 3 speed in UK NEQAS / Lab assesses and reports 4 but prefer 3 for NEQAS purposes / I think that for EQA purposes, assessing 3 speeds is satisfactory (3)
- We assess using 7 speeds
- WHO set the standards who governs the British Andrology society to say that they are correct, considering it's this body and the BAS who have decided that they should change back
- We only assess motile vs immotile
- From our diagnostic point of view, the nature of the motility is important in assessing suggestions for improving chances of conceiving.
- We report 4 speeds routinely for patients samples and so would prefer to have the images that we also use for internal QC to have 4 speeds assessed.
- Changing to four speeds would involve a change in SOPs and to preprinted results forms-this would incur time and expense.
- Is this UKAS assessment driven? it is frustrating that UKAS and ABA seem to be at odds with NEQAS and WHO. We spent so much time and effort switching from 4-3 grades only to be told by UKAS assessors who seem mainly to be ABA committee members that we should be doing 4 grades. We need 1 method and stick to it if we wish to maintain accuracy and avoid confusion with our users.

Summary of Embryology Scheme Questionnaire 2017-2018

The survey was sent to the 97 participants in the Embryo morphology scheme. There were 47 responses to the questionnaire (48%).



The preferred distribution frequency is three monthly by a huge percentage. Three monthly distributions are the minimum required for robust statistical analyses.

Ease of use of aspects of the Embryology Scheme

	2017-2018	2016-2017	2015-2016
Downloading reports from UK NEQAS online	7.9	8.6	8.4
Interpreting reports from UK NEQAS online	6.3	6.6	5.5

Unfortunately the score for both aspects is lower than the previous year.

The 2 comments received stated:

- Can't easily work out bias report – easier to see green lights etc
- The graphs have never really made sense to me to be honest.

Contact by Participants with the Embryology Scheme

Nature of contact	% of participants		
	2017-2018	2016-2017	2015-2016
None	58	71	84
Finance/billing	27	14	6
Problems with samples / images	8	10	0
Technical Advice	12	10	3
Performance issues	8	5	3
Other	0	10	3

Participant satisfaction

This year there were 13 respondents that had contacted the scheme. Only 1 of those was dissatisfied due to no response in regard to a billing query.

Contact by the scheme with Participants

Only 24% of participants were contacted and half related to finance issues. The other contact related to information and performance issues. All participants were satisfied with the customer service.

Ease of use of the Gamete Expert aspects of the Embryology Scheme

	Weighted Average (/10)		
	2017-2018	2016-2017	2015-2016
Supervisor Function	8.37	7.94	8.26
Interpreting Reports	7.23	7.56	6.88
Submitting Results	8.45	8.28	7.82
Viewing Images	7.84	7.08	7.18

It is good to see an general increase user satisfaction for the Gamete Expert elements over the past 3 years.

Comments received include:

- It would be better if we could scroll to the blastocyst formation section rather than watching the whole film again.
- Often have to leave the page and go back to get the video to run again
- Gamete expert is clunky and not particularly user friendly, it could do with a review
- Tend to have problems playing videos on our work computers, sometimes very slow website.

Other comments on the scheme:

- The correct results are obviously not correct for some embryos (especially between large fragments and small cells) and scores are given according to those 'correct' answers which is not fair and very confusing. Those debatable embryos should not be used in the first place or if used allowances should be given for answers that may be debatable.
- Better explanation of what the analysis means (in plain English)
- I don't think it would be popular to increase frequency as this would inevitably increase costs. I think the current frequency is an acceptable balance of value and cost. We are under increased pressure in the NHS to reduce costs and any increase may result in labs coming out of the scheme for financial reasons. I think it does the job, the results are helpful.

Time lapse annotation pilot scheme

Question	Weighted average 2017/2018	Weighted average 2016/2017
If you DO routinely use time-lapse for clinical treatment how useful is the pilot scheme	6.79	7.11
If you do not use time-lapse for clinical treatment how useful is the pilot scheme?	2	6.25

Comments

- The videos need to the ability to be moved a frame at a time. I understand this will be happening in future submissions.
- It's hard to use properly, you need function to go backward and forward frame by frame to annotate properly
- Did do it one time - but not much control over stopping and starting the video and v hard to 'rewind'. It would be helpful to be able to scroll back and forth through the videos more easily, frame by frame
- Is there any feedback re the time lapse though?

Management Response

Comments will be discussed with the Embryology Steering Committee

UK NEQAS Andrology participant comments and complaints 2017-2018

The 4 distributions in the review period were D93-D96, during which time the Andrology Scheme experienced 29 complaints regarding specimens distributed. D95 received 12 complaints due to a contaminant within two of the samples. This incident was investigated and appropriate corrective action has been implemented to prevent recurrence. It was decided not to score performance on the samples affected or to include them in overall performance scores. Over the other 3 distributions the most numerous complaint was of aggregation in samples. The aggregation reported has been investigated previously and is considered a documented artefact that appears to have no effect on participant performance. All participants that complained achieved satisfactory results.

Other complaints received during the year included: problems playing the motility images in D93 (3) – resolved by upgrading media player; problems with the quality of the motility images – participant did not provide further information when requested; concerns that the participant was unable to distinguish non progressively motile sperm from those ‘knocked’ – they were contacted to inform them satisfactory performance was achieved.

There were complaints on morphology stating that the sperm was not adhering to the slide and another that there was poor staining. Both times satisfactory results were achieved and the centres informed.

There was one comment received relating to the online morphology, that images were too dark. The participant did not respond to correspondence and there results indicated no effect on the penalty points.

Complaints received per distribution did not reach warning levels.

UK NEQAS Embryology participant comments and complaints 2017-2018

There was a query regarding the options available to choose from for grading embryos. This was a transcription error that occurred during upgrades for the new grading system and has not recurred.

Audits

There were 17 audits scheduled in this period. All audits were started within the 3 month allocated period. Two audits breached the recommended 3 month timeframe for resolution of nonconformances. All have now been closed (July 2018).

Following the UKAS inspection of Jan 2018 audit reporting has been improved and there is a combined quality approach for UK NEQAS RS and Diagnostic Andrology recorded through regular meetings of the Quality Managers – (Continual Quality Improvement Meetings).

Assessments from outside bodies

UK NEQAS Reproductive Science underwent a surveillance visit inspection against standards ISO 17043:2010 in January 2018. There were 12 non-conformances raised. Findings were closed out in April and maintenance of accreditation received.