Dorset County Hospital NHS
NHS Foundation Trust

Andrology Department
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Monday, 30th October 2023

IMPORTANT INFORMATION FOR CLINICIANS REGARDING CHANGES IN ANDROLOGY SERVICES AT DORSET COUNTY HOSPITAL FOR FERTILITY ANALYSIS:

Dear Andrology service users,

The andrology services hosted at Dorset County Hospital NHS Trust is required to make a series of changes to laboratory practices and its reporting system to bring practices in line with the revised recommendations within the WHO laboratory manual for the examination and processing of human semen (6th Edition, 2021) and the requirements of the European laboratory standard ISO15189:2012; assuring our users of a quality service through accreditation with the United Kingdom Accreditation Service (UKAS).

The sixth edition of the WHO Manual for the Laboratory Examination and Processing of Human Semen is a reference document for procedures and methods for the laboratory examination and processing of human semen, which are intended to maintain and sustain the quality of analysis and the comparability of results from different laboratories; as a result of the transition to adopting these methods, the following changes are to be made for Fertility analysis reports for specimens received from 14th October 2023 onwards;

Semen analysis	New test components	Reason
Specimen receipt	• Receipt time within 50 minutes of production. • Patient questionnaire amendment: patients will need to provide information of any severe infection or inflammatory disease in the last 6 months and details of any drugs or medication they have been taking	• Semen must be examined within an hour of production; 50-minute delivery time provides the laboratory with 10 minutes to return to the lab after liaising with the patient and prepare the sample for processing. • Added questions allow consideration of outside factors affecting sperm quality e.g., illness and/or medication/drug use.
Specimen Rejection	• Standardised format to detail reasons for rejection of specimens.	• Provide clinicians and patients with a clearer reasoning behind specimen rejection
Semen macroscopy	• Ejaculate odour • Mucus strands • Agglutination • Crypto zoospermia • Azoospermia	• Information of a strong odour of urine or putrefaction can be of clinical importance • The presence of mucus strands may interfere with ejaculate examination • Agglutination reports are now standardised for easier interpretation • Crypto zoospermia indicates passage from the testicle(s) to the urethra but with severely limited sperm production or hampered sperm transport. • Azoospermia likely caused by: ▪ no or extremely low sperm production ▪ no passage from testicle(s) to the urethra
Sperm motility	• Now includes 4 categories of motility: Rapid progressive, Slow progressive, Non-Progressive, and Immotile. • Total progressive motility and total motility values also given	• The presence (or absence) of rapid progressive spermatozoa is clinically important • Reporting total progressive motility and total motility values can help with interpretation as there are established reference range values for these test results.

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Sperm vitality	• The threshold for assessing sperm vitality has dropped from 58% total progressive to 40% total progressive. This will mean fewer vitality test results • Vitality interpretation: report will include a comment when % of alive but immotile spermatozoa is greater than 25%	• % alive but immotile: The presence of a large proportion of live but immotile cells may be indicative of structural defects in the flagellum, and a high percentage of immotile and dead cells may indicate epididymal pathology or an immunological reaction due to an infection. • A result of 25-30% or more alive but immotile may indicate a genetic ciliary problem
Specific sperm defects / other cells	• Comment on specific sperm defects and other cell types (if present)	• Reporting the presence and proportion of significant numbers of specific sperm defects and other cell types (such as inflammatory cells and sperm precursors) may be clinically significant
Reference Ranges		• Standard reference ranges as recommended by WHO v6 (2021), to reflect change in laboratory methods.

Should you need assistance in interpreting these new result parameters please call the laboratory for technical advice.

NB: Following these changes in protocol, the laboratory will be assessed by UKAS to confirm continued accreditation to ISO15189 (2012) in the coming weeks; until this time, please be advised that all Fertility assessments will be carried out in a non-accredited capacity.

Please note: Laboratory opening times, specimen and patient information requirements will not be changing; these requirements must continue to be adhered to and the **specimen request form** will continue to be required **from the referring clinician**, either by a printed ICE form (preferred method) or handwritten Histology request form.
As before, if the laboratory requirements detailed on the patient information leaflet are not followed, the specimen may be rejected, causing an inconvenience to the patient who will be required to produce and transport another sample to the laboratory at a later date.

When referring patients for semen analysis, please pay close attention to the following laboratory requirements and advise accordingly:

- Patient must be given a **request form** for each sample to be submitted (ICE or handwritten)
- Patient requires a **booked appointment** for semen delivery (patient must call the laboratory to arrange)
- The **complete** semen sample collected into the **laboratory-issued** specimen pot
- The necessary **abstinence** period (2-7 days)
- **50-minute** time limit between specimen production and delivery to the lab
- The appropriate labelling of both the **specimen pot** and **request form**.

Please ensure that all clinicians within your department / practice are made aware of the changes to our laboratory processes and reporting template and are given copies of the attached updated Patient Information Leaflet to minimize the number of patients having the inconvenience and distress of a sample being rejected or result delayed.

Yours sincerely,

Samantha Hansford, Histopathology Laboratory Manager, Head BMS