

Digital Morphology – past, present and future

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10 years of Digital Morphology

The Slidepath system has closed...

UKNEQAS General Haematology Digital Morphology Scheme

Latest Updates

06 October 2017 - 09:21
Relevant Information

Update > 1704DM is open - closing 6th October

Case 1704DM is now open

If you cannot access new cases you may need to reactivate your account - see your Laboratory Manager for a new 'activation key'

Important Note: If you are using the latest version of Google-Chrome you may experience problems viewing cases. Please download and install the Adobe Flash Player update available from:
<https://get.adobe.com/flashplayer>

UK NEQAS Haematology

Case Schedule - dates may vary by a few days

| Case Number | Target Open Date | Target Close Date | Current Status |
|-------------|------------------|-------------------|------------------------|
| 1701DM | 20 Feb 2017 | 13 Mar 2017 | Certificates Available |
| 1702DM | 22 Mar 2017 | 14 Apr 2017 | Certificates Available |
| 1703DM | 12 Jun 2017 | 21 Jul 2017 | Certificates Available |
| 1704DM | 18 Sep 2017 | 06 Oct 2017 | Open |

Support / Contact Us

PLEASE ENSURE YOU QUOTE YOUR USERNAME / PRN IN ALL CORRESPONDENCE

10 years of Digital Morphology participation

- Pilot scheme run from 2005 to 2007
- Launched in March 2008
 - 2008: 1564 licences
 - 2013: 2343 licences
 - 2018: 3187 licences
 - 16 countries
 - more than 280 laboratory accounts

10 years of Digital Morphology participation

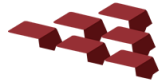
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10 years of Digital Morphology cases

60 cases published

| | | | |
|--|--|--|---|
| Hb A/E/Barts | Megaloblastic anaemia - vit B12 deficient | May Hegglin Anomaly with hyposplenism | South East Asian Ovalocytosis |
| T-PLL | Hb SS in crisis | Liver disease with hyposplenism | Primary Myelofibrosis |
| PK deficiency post splenectomy | G6PD deficiency - haemolytic episode | RAEB-II | Disseminated breast cancer |
| AML therapy-related | Multiple myeloma end stage, Plasma cell leukaemia | Glandular Fever (Infectious Mononucleosis) | CLL with beta thalassaemia trait |
| Burns victim (70%) | MAHA with disseminated carcinoma and leucoerythroblastosis secondary | CMML | Leukoerythroblastic features reactive to bacterial sepsis |
| APML | AML with Hb SC | Systemic Mast cell disease -AHNMD (PDGFRa+) | Hb SC disease |
| Glandular Fever (Infectious Mononucleosis) | CLL with AIHA | TAM in Down's Syndrome child | Liver disease with thrombocytopenia - "spur cell anaemia" |
| TTP with HIV | HCL | CMML | AML with multi-lineage dysplasia |
| CML (CGL) | Adult T-cell leukaemia/lymphoma with G6PD deficiency | AML | APML |
| Hb SC disease | T-ALL | Adult T-cell leukaemia/lymphoma | Megaloblastic anaemia - vit B12 deficient |
| AMML | Pelger-Huet Anomaly | CMML | Mantle cell lymphoma |
| Polycythaemia - dimorphic | AML with multi-lineage dysplasia | Hb E/B+ thalassaemia | HbCC with iron deficiency |
| Myelofibrosis in transformation AML | CLL with AIHA | TTP | Transformation of myelodysplasia to acute leukaemia |
| HPP in neonate | Myelofibrosis as a progression of primary polycythaemia | Multiple myeloma with circulating plasma cells | Sezary syndrome |
| HCL post splenectomy | APML (microgranular variant) | SCID with maternal GVHD - 2 week baby | Hairy cell leukaemia |

UK NEQAS Haematology has entered into partnership with a new company to carry forward the success of Digital Morphology:

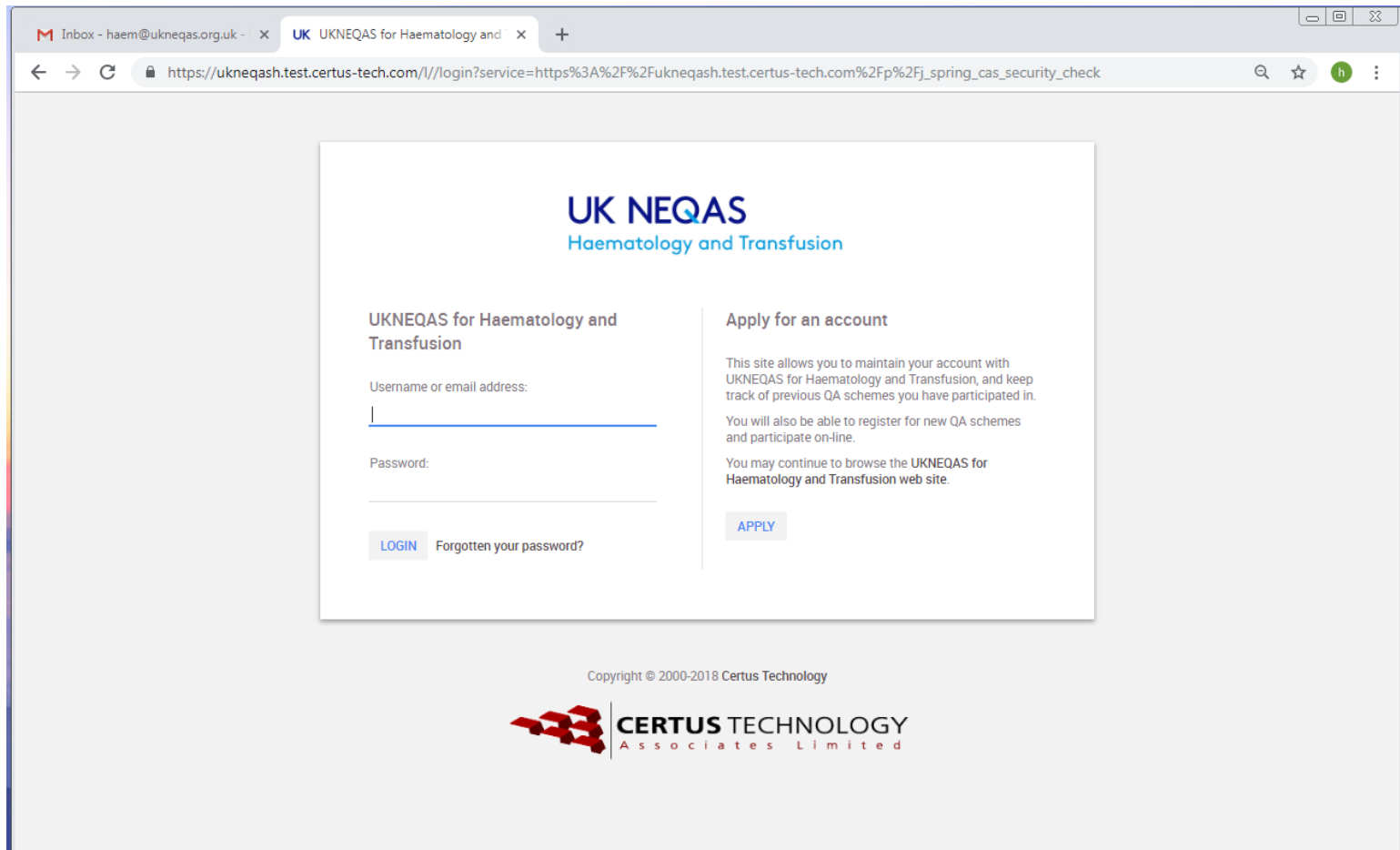


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Training & Education*

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The screenshot shows a web browser window with the following details:

- Browser tabs: "Inbox - haem@ukneqas.org.uk" and "UK UKNEQAS for Haematology and Transfusion".
- Address bar: "https://ukneqash.test.certus-tech.com/#!/login?service=https%3A%2F%2Fukneqash.test.certus-tech.com%2Fspring_cas_security_check".
- Page Content:
 - UK NEQAS**
Haematology and Transfusion
 - UKNEQAS for Haematology and Transfusion**
 - Username or email address:
 - Password:
 - [LOGIN](#) [Forgotten your password?](#)
 - Apply for an account**
 - This site allows you to maintain your account with UKNEQAS for Haematology and Transfusion, and keep track of previous QA schemes you have participated in.
 - You will also be able to register for new QA schemes and participate on-line.
 - You may continue to browse the UKNEQAS for Haematology and Transfusion web site.
 - [APPLY](#)
- Footer:
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Digital Morphology | QA Manage x +

← → ↻ 🔒 https://ukneqash.test.certus-tech.com/p/eqa/dmpt/select_case/BF62EF870A00027735B782329A5656CA 🔑 🔍 ☆ 🌐 ⋮

DM 2018-19 Case 2 (testing) ▾

📅 01/08/2018 00:00
30/10/2018 00:00

Case is available for testing

1805DM ▾ 📄

[QUESTIONNAIRE](#)

▾ Outline Description

Patient admitted via AE, fever and nausea. WBC 4.3 x 10⁹/L, Hb 158 g/L, Platelets 95 x 10⁹/L

▸ User Observations

[SUBMIT](#) [BACK](#)

+

-

4x

10x

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Digital Morphology | QA Manage x +

← → ↻ https://ukneqash.test.certus-tech.com/p/eqa/dmpt

DM 2018-19 Case 2 (testing)

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1805DM

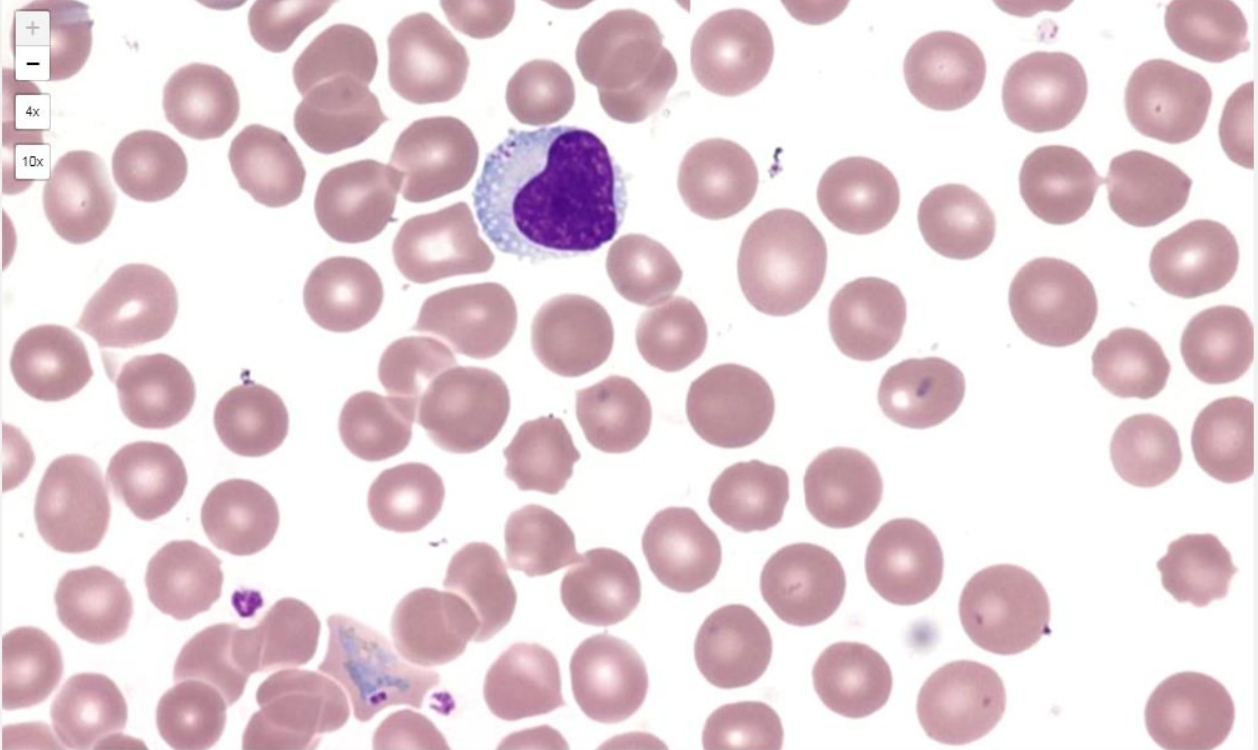
QUESTIONNAIRE

Outline Description

Patient admitted via AE, fever and nausea. WBC $4.3 \times 10^9/L$, Hb 158 g/L, Platelets $95 \times 10^9/L$

User Observations

SUBMIT BACK



The image shows a digital micrograph of a blood smear. The field is dominated by numerous red blood cells (erythrocytes) that appear as uniform, pinkish-purple spheres. In the center, there is a single white blood cell (leukocyte) with a large, dark purple, lobed nucleus and a thin rim of light blue cytoplasm. The background is a light, off-white color.

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01/08/2018 00:00
30/10/2018 00:00

Case has been submitted

1805DM

Narrative

The blood film is stained as a standard laboratory film for the investigation of unexplained thrombocytopenia.

In fact, a subsequent travel history revealed recent return from foreign travel, so perhaps an appropriate film stained for malarial parasites might have been useful (PDF). The mild thrombocytopenia reported by the analyser cannot be confidently detected on this limited blood film and those platelets present have fairly normal morphology. There are however some mild reactive changes affecting the white cells [annotation 1], and some relatively non-specific changes affecting erythrocytes including occasional target cells [annotation 2] (PDF 1); contracted cells [annotation 3] (PDF 3) and spiculated cells – in this case echinocytes [annotation 4] (PDF 3).

Thrombocytopenia is most often associated with infection by *P. falciparum*, but can be also occur with other malarial species. Given the particular travel history in this case we hope you found the parasites and arrived at most likely diagnosis.

Malarial parasites can be detected infecting a number of the erythrocytes: we hope you found the examples of the following

Concluding Summary

User Observations

Annotations

RESET BACK

Annotation
Title annotation 1
Description Note the single 'band' form of the nucleus; this neutrophil is 'left shifted', a sign of reactive changes. The granulation is also slightly more prominent and darker than normal, 'toxic granulation' is another indication of a reactive picture.

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The screenshot shows a web browser window with the URL <https://ukneqash.test.certus-tech.com/d/CRDownload.do?uniqueIdentifier=%7BBB2334D40A00027731B2C5B26C38BED1%7D%3A%7B4ff28dd6-becf-4f31-b32b-99...>. The page content is as follows:

UK NEQAS Certificate: 00000029
Haematology and Transfusion
Digital Morphology CPD

Participant: Jon Sims - test
CPD Date: 04/10/2018
Total Number of Participants: 3
Module: DM 2018-19
Case Identifier: DM 2018-19 Case 2

Consensus of morphological features recorded:

Your observations

| Rank | Morphological Feature | Participants who selected this feature |
|------|----------------------------------|--|
| 1 | Normocytic RBC | 33.33% |
| 2 | Clumps | 33.33% |
| 3 | Band form neutrophils/Left shift | 33.33% |
| 4 | Malaria parasite | 33.33% |

All participants' observations

| Rank | Morphological Feature | Participants who selected this feature |
|------|----------------------------------|--|
| 1 | Normocytic RBC | 33.33% |
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| 3 | Band form neutrophils/Left shift | 33.33% |
| 4 | Malaria parasite | 33.33% |

Actual pathological diagnosis
Malaria - Plasmodium vivax

What are your thoughts on this new DM interface?

Reflective note
This is a demonstration CPD note