

Education & Training of healthcare scientists: Fit for the future?

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HMDS

haematological malignancy diagnostic service
education & training

INTRODUCTION

Over the last 60 years Haematology & Transfusion Science laboratories have undergone changes starting from a limited repertoire of tests carried out by general technicians to the current state of specialist testing carried out by highly skilled healthcare scientists (HCS) using sophisticated technology.

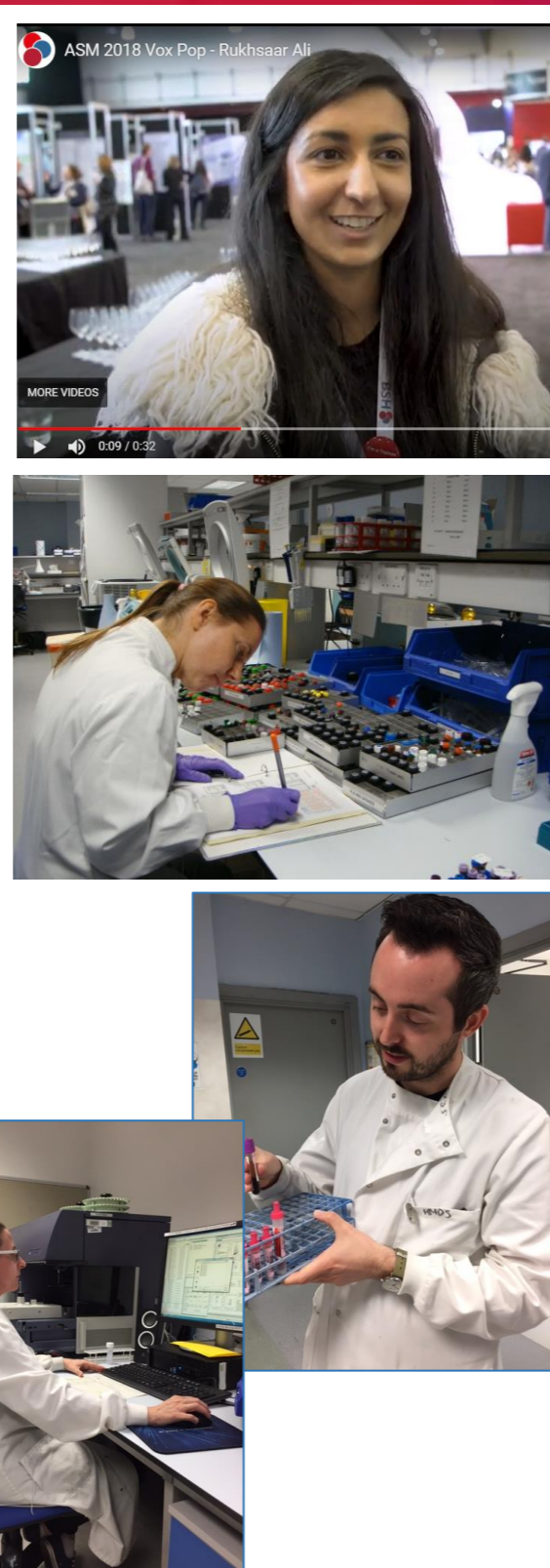
However, the current service is a mishmash of poorly connected specialist laboratories and large numbers of general laboratories.

The historical evolution of the NHS and laboratory service has resulted in a lack of concordance in training HCS and career progression nationally within Haematology & Transfusion Science.

This results in the loss of HCS from the workforce and stagnation and under use of HCS with the potential to become the specialists and leaders of the future.

AIM

- Our staff are our greatest resource – we cannot keep losing skilled staff because of lack of academic career progression.
- There is overlap in the roles of biomedical Scientists (BMS) and Clinical Scientists (CS)
 - Advanced BMS and CS may have almost identical training and job roles
- Currently only CS are eligible for higher specialist scientist training (HSST) leading to FRCPath and future Consultant Clinical Scientist roles
- Aim of this abstract is to open up the discussion and find a path to enable BMS to have equal access to HSST.

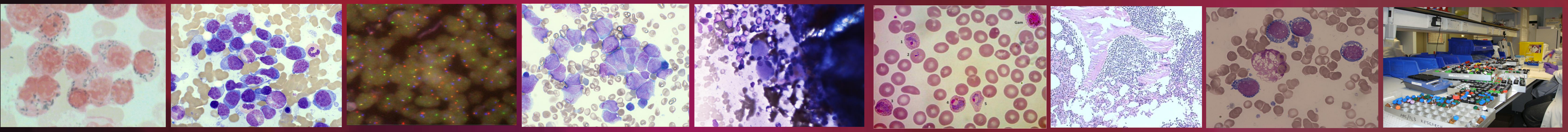
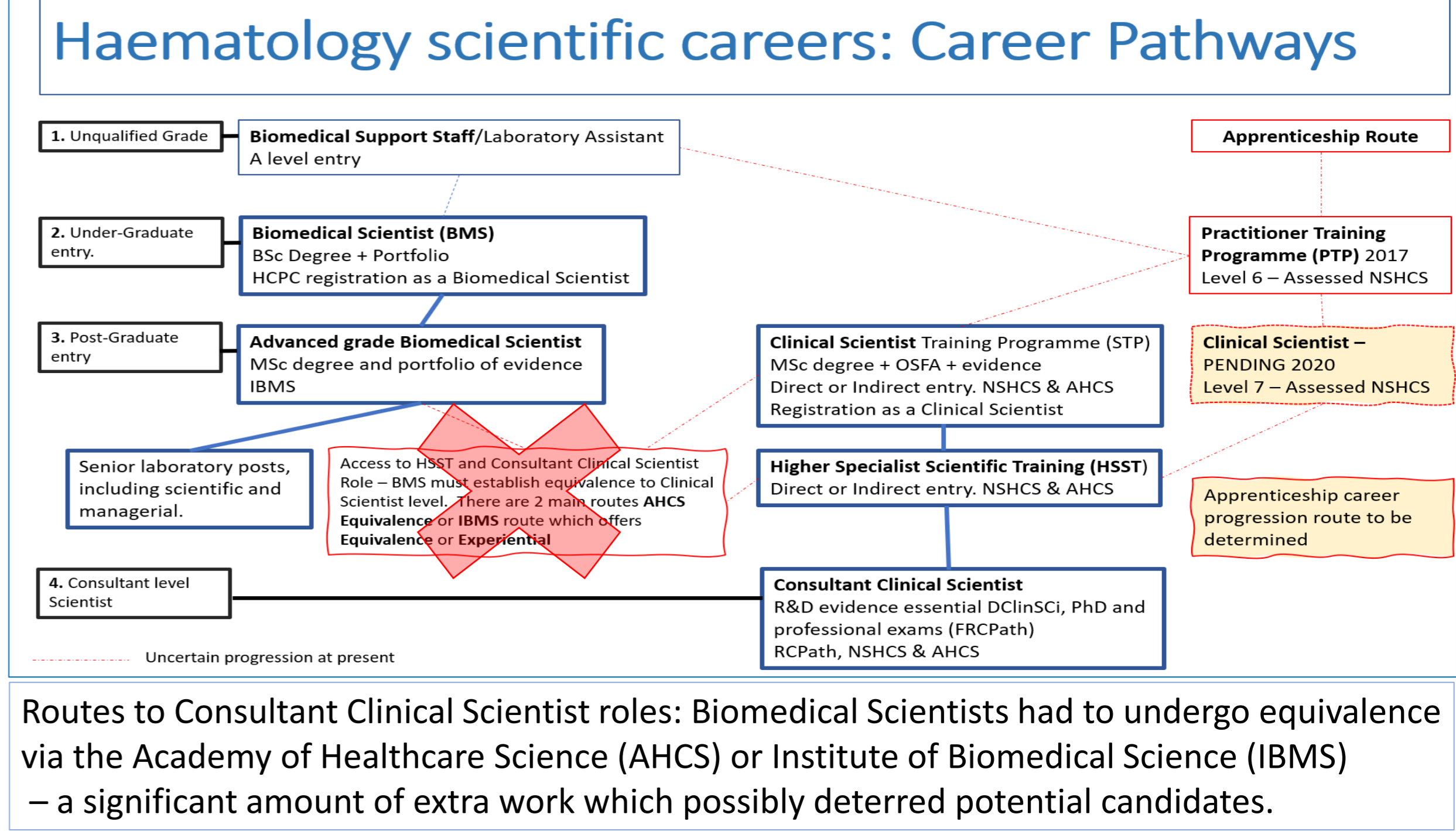


BACKGROUND

- The term HCS covers both Biomedical Scientists (BMS) and Clinical Scientists (CS), Health and Care Professions Council (HCPC) registered titles.
- Haematology & Transfusion Science laboratories historically employ BMS with CS confined to specialised laboratories.
 - This matters as there is an established route to **Consultant CS**
 - but scientific/academic career progression as a BMS is difficult with able BMS often progressing to senior laboratory management and quality roles.
 - There is a **clear need** for highly skilled, academic HCS to develop, implement and interpret complex assays in clinical laboratories in an era of precision medicine.
- I hoped the 2010 education and training strategy for HCS, so called '**Modernising Scientific Careers**' (MSC) would remove **artificial barriers** that exist by introducing a **national curriculum** and **harmonising career pathways**.
 - This did not happen, instead a parallel system '**Scientist Training Programme**' was developed.
- Scientist Training Programme (STP) is run by the **National School of Healthcare Science (NSHCS)**, it is a highly competitive post-graduate programme attracting the brightest but remains **under-utilised in Haematology** with few posts commissioned by haematology departments.
 - 2020 there were just **2 x STP** posts commissioned in the UK (table is 2018 when 8 posts commissioned, most we have ever had in a cohort) Haematology should be similar to Biochemistry.
- At a time when there is a **workforce shortfall** in medical Haematology & Transfusion Consultants there **should be an expansion of CS undergoing Higher Specialist Training (HSST)** with clear recognition of their role within the profession.

Discipline	Number of students	Number of posts	Competition ratio 2018
Anatomy	26	2	13
Archaeology	134	1	134
Cardiac Science	144	28	5.1
Clinical Biochemistry	188	18	10.4
Clinical Biochemistry (Genetics)	136	8	17.0
Clinical Biochemistry (Health Informatics)	64	1	64
Clinical Biochemistry (Physical Sciences)	38	6	6.3
Clinical Engineering	234	14	16.7
Clinical Immunology	237	3	79.0
Clinical Microbiology	191	6	31.8
Clinical Pathology	214	10	21.4
Genetics	41	3	13.7
Genetics (Clinical)	214	14	15.3
Genetics (Community)	435	15	29.0
Genetics (Forensic)	220	13	16.9
Genetics (Public Health)	188	8	23.5
Healthcare Informatics and Informatics	107	6	17.8
Immunology	8	1	8
Immunology (Clinical)	137	12	11.4
Immunology (Public Health)	237	7	33.9
Immunology (Research)	136	6	22.7
Immunology (Specialist)	136	6	22.7
Respiratory and Sleep Sciences	136	8	17.0
Respiratory Sciences	61	1	61
Respiratory Sciences (Public Health)	61	1	61
Optics and Vision Science	22	4	5.5
Visual Science	137	16	8.6

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BSH & RCPATH REPORTS 2019

"There were **insufficient data** collected about haematology clinical scientists to make any clear conclusions, but those who did respond to the survey expressed concerns about problems with recruitment and retention in their professions"

"Furthermore, we will work to ensure availability and continuity of **funding** for HSST, particularly across some of the devolved nations".

"The College will continue to **recommend** and encourage trusts and employers to appoint consultant clinical scientists to support haematology services and patient care".

"consultant clinical scientists will be required to **fill the gap** this leaves behind at the interface between the lab and clinical services at the diagnostic end of haematology patient journeys in the future"

CONCLUSIONS

- A Haematology & Transfusion Science scientific workforce fit for the next 60 years requires a **re-think** in education and training of HCS.
- Doing nothing **risks** this valuable human resource because of artificial barriers to higher specialist training.
- Education and training of HCS routes **must** be simplified. There should be **agreed national curricula** and **objective assessment** that all routes.
- Existing **professional bodies** need to **co-operate** with joined up approaches to assessment and **clear benchmarks for career progression**.
- This generates a larger pool of eligible staff for HSST which would **ameliorate** some of the workforce issues as Consultant HCS are able to report a broad range of complex tests.

BREAKING NEWS

Following submission of this abstract (Jan 2020) work has progressed:

- 'Task & Finish' workforce groups were organised with representatives from the various professional bodies and Chaired by the NSHCS.
 - MS Teams meetings during lockdown
- Agreement was reached
- Consensus statement issued Sept 2020
- HSST commissioning open for 2021 entry.

HSST now open to Biomedical Scientists

Joint statement on HSST eligibility

<https://www.ibms.org/resources/news/joint-statement-on-hsst-eligibility/>

REFERENCES & USEFUL WEBSITES

- British Society for Haematology's Workforce Report 2019
- Royal College of Pathologists' report The haematology laboratory workforce: challenges and solutions 2019

- <https://nshcs.hee.nhs.uk/>
- <https://www.ahcs.ac.uk/>
- <https://www.ibms.org/home/>
- <https://b-s-h.org.uk/>
- <https://www.rcpath.org/>

CONTACT INFORMATION

The view expressed are my own.

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