CONAL DEVINE & ASSOCIATES
management consultants

Final Report

Medical Scientist Grades Assessment

January 2023

Contents

1. Introduction and Terms of Reference

1.1. Introduction

1.1.1. Following conciliation talks facilitated by the Workplace Relations Commission, the following proposal was recommended to the parties referenced below.

"…The parties have agreed to the independent assessment of the role, responsibilities and pay of medical laboratory scientist grades and the attached terms of reference outlines the details scope, methodology attached to this body of work…."

The following Terms of Reference were agreed between the HSE, Department of Health, Department of Public Expenditure and Reform

and

The Medical Laboratory Scientists Association

1.2. Terms of Reference – Medical Scientist Assessment

1.2.1. Introduction

"*The Health Service Executive (HSE), the Department of Health (DoH), the Department of Public Expenditure and Reform (DPER) and the Medical laboratories Scientists Association (MLSA) henceforth referred to as the Parties, have, under the auspices of the Workplace Relations Commission (WRC), agreed to an assessment of the role of medical scientists in public hospital laboratories to determine whether the Report of the Expert group on Medical Laboratory Technicians/Technologists grades is still valid, noting that it is 21 years since the Expert Group Report.*

The Expert Group based its recommendations for parity on the fact that there was a "lack of any evidence that the development of other departments has lagged behind Clinical Biochemistry or that Clinical Biochemistry laboratories that do not employ biochemists suffer adversely".

Pay parity with clinical biochemists was awarded in 2001 following the Report of the Expert Group. Arising from the benchmarking process separate pay scales for the respective grades re-emerged.

The MLSA re-served its claim for parity in January 2020. The Parties have agreed that the assessment will be of the role, responsibilities and pay of the profession. The Assessment will be conducted under these Terms of Reference."

1.2.2. Scope

1. The Assessment shall conduct an examination of the roles performed by Medical Scientists, Senior Medical Scientists and Chief Medical Scientists to determine if the roles performed are still equivalent to the roles performed by, respectively, Biochemists, Senior Biochemists and Principal Biochemists. In conducting this assessment due cognisance will be taken of the respective qualifications, clinical placement training and registration requirements of each profession. Due cognisance will also be taken of issues such as job descriptions, managerial, quality and leadership responsibilities and engagement with broader clinical, managerial and multi-disciplinary teams.
2. This Assessment will report separately on each individual medical scientist grade and its equivalent biochemist grade. The process will consider any potential impact to the pay scales for the grades of Specialist Medical Scientist and Laboratory Manager, cognisant of the need to maintain pay differentials between these grades and the grades being assessed.
3. While recognising that Medical Scientists and Biochemists only work side by side in Biochemistry laboratories, the Assessment Team will also take into account the roles and responsibilities of medical scientists at each grade in all laboratory disciplines*.
4. The Assessment will consider issues that have an impact on recruitment and retention.

1.2.3. Methodology

- The Assessment Team will conduct site visits to hospital laboratories in an agreed representative sample of Model 4, 3, and 2 hospitals. The Assessment team shall request written and/or oral submissions from parties they deem to be relevant and appropriate.

2. Assessment Process

2.1.1. Conal Devine, who will be assisted by a nominated person who will provide technical/scientific and laboratory governance expertise and context, where required.

2.1.2. Assessment Sites

St. Vincent's University Hospital
University Hospital Limerick
Coombe Women and Infants University Hospital
Bantry General Hospital

2.1.3. Assessment Timeframe

The assessment will be carried out within the shortest timeframe possible and completed within 8 weeks but no later than 12 weeks from the start date.

It is intended that the assessment team will be selected and a start date announced within four weeks of the date of this agreement.

The parties have agreed to return to the WRC on Tuesday 6th September to ensure that sufficient progress has been made on the assessment in line with the proposed timeline.

2.1.4. Key Stakeholders

MLSA
HSE
DOH

2.1.5. Outcome

The assessment team will issue a report of its recommendations to the parties. On receipt of the report, the parties will immediately re-engage under the auspices of the WRC and, if required, may return to the Labour Court in line with the terms of the Direction of the Labour Court of 25th May 2022.

2.2. Data Collection re: selected post holders

2.2.1. Draft Data Collection Forms were prepared by the Assessor and distributed to the parties for comment. Some adjustments were made to the number and disciplines of grades and laboratory disciplines who would receive the data collection forms and who would be interviewed in connection with the assessment sought from each of the Medical Scientist Grades in Biochemistry in each hospital location and from laboratory disciplines where such a discipline was a distinct laboratory service. In addition, in one each of the following core Pathology disciplines/ specialties, Data Collection Forms were to be sought from each of the Medical Scientist Grades in no more than two of such disciplines in each hospital so that the data collected would broadly relate to the following grades and Disciplines follows:

Biochemistry; 12 Medical Scientist individual forms, 3 Biochemist individual forms.
Histopathology: 3 Medical Scientist individual forms
Microbiology/Virology: 3 Medical Scientist individual forms
Haematology: 3 Medical Scientist individual forms
Blood bank/Blood transfusion: 3 Medical Scientist individual forms
Immunology: 3 Medical Scientist individual forms
Multi- Disciplinary: 3 Medical Scientist individual forms 1 individual Medical Scientist form from each of-
-Haemovigilance
-Quality
-Surveillance

2.2.2. The following Grades and disciplines per hospital category returned data collection forms and were interviewed by the Assessor:

<u>Biochemistry: Level 4 Hospitals;</u>

2 Chief Medical Scientists (one of whom retired in the course of the assessment process)
3 Senior Medical Scientists
4 Staff Grade Medical Scientists
1 Principal Biochemist * form completed at interview
1 Biochemist Grade
1 Principal Biochemist working on a site not visited.

Biochemistry: Level 3 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist
1 Staff Grade Medical Scientist
1 Senior Biochemist

Multi-Disciplinary: Level 2 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist
1 Staff Grade Medical Scientist

Histopathology: Level 3 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist (Acting CMS Cytology)
1 Staff Grade Medical Scientist

Microbiology/Virology: Level 4 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist

Haematology: Level 4 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist
1 Staff Grade Medical Scientist

Immunology: Level 4 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist

Blood Transfusion: Level 3 Hospital;

1 Chief Medical Scientist
1 Senior Medical Scientist
1 Staff Grade Medical Scientist

Other Laboratory Disciplines: Level 4 Hospitals;

1 Chief Medical Scientist – Quality
1 Chief Medical Scientist – Point of Care Co-ordinator
1 Senior Medical Scientist – Haemovigilance Co-ordinator
1 Laboratories Quality Manager
1 Surveillance Scientist

2.2.3. Identified sample post holders were provided with a data collection form to be completed and returned. These followed up with interviews on the hospital site with each available selected post holder to ensure that the Assessor had a full understanding of the post. Some follow up interviews were conducted on – line or by telephone.

2.2.4. While the post holders were required to sign and confirm the accuracy of the data submitted and also require their respective line manager to confirm that the information provided was consistent with the duties and responsibilities of the post. Undertakings were provided to each respondent that their identity would remain confidential.

2.3. Hospital Site Visits and Meetings

2.3.1. The Assessor visited the four selected hospital sites where laboratories were visited and respondents were interviewed. Meetings also took place with Laboratory Managers in the Level 4 and Level 3 Hospitals. Hospital management were also provided with an opportunity for input into the assessment process.

2.3.2. The Assessor met with national MLSA representatives and with representatives from the Department of Health, Department of Public Expenditure and Reform, CERS and the HSE in the course of the assessment process.

2.3.3. The Assessor engaged directly with Forsa Trade Union representing Biochemist Grades. At the request of the Assessor, a Principal Biochemist in a separate Level 4 Hospital, with a direct reporting relationship to a Consultant Biochemist was sourced by Forsa Trade Union and facilitated by the Academy of Biomedical Science (ACBI) and completed a comprehensive data collection form.

2.4. Job Descriptions and Specifications

2.4.1. A desktop examination took place of available job descriptions and specifications of Medical Scientist and Biochemist Grades

2.5. Relevant Policies

2.5.1. The parties were requested to cite relevant health service and scientific related policies to be examined by the Assessor to establish context.

2.6. Written Submissions

2.6.1. The relevant parties were requested to submit written evidence/submissions relating to the future role of Medical Scientific Grades within the Health Services and the position of such grades within the Health Service Consolidated Salary scales. The MLSA provided two comprehensive written submissions which are attached as appendices to this Assessment report. The employer side provided written comment on the draft assessment report, as did the MLSA . As far as practicable, those responses were taken into account in completing this report. The employer side also wished it noted that the outcome of the Strategic Review on the Future Development and Role of Medical Laboratories was awaited.

2.7. Additional Validation

2.7.1. In order to ensure that the Assessor had a clear understanding of the clinical governance context for acute hospital laboratory services. The following post holders were interviewed and/or were invited to submit their written views. These included:

- Clinical Director of Pathology Services Level 4 Hospital not included in site visits
- Clinical Director of Pathology Services Level 3 Hospital not included in site visits
- Laboratory Manager Acute Hospital Group (not included in site visits)
- Consultant Chemical Pathologist with commitments to a Level 4 and a Level 3 hospital with an academic responsibility for Biochemistry

2.8. Assessment and Validation of Data

2.8.1. Information was collected through a desktop examination as well as interviews on line where practicable. Information will be collected and assessed having regard to the headings outlined below. As there is no nationally agreed scheme in operation for the evaluation of clinical and scientific grades in the HSE, the following headings were formulated having regard to the generic factors originally selected by the Public Service Benchmarking Body (2002):

- Professional/Technical Competence
- Problem Solving
- Judgement and Decision Making
- Responsibility and Accountability
- Communications

2.9. External expertise provided to the Assessment Process

2.9.1. A senior academic Consultant with experience as a Clinical Director of Pathology services, Professor John O`Leary (Chair of Pathology, Trinity College Dublin) and a recently retired HSE Acute Hospital Group Chief Executive (Mr Gerry O`Dwyer) agreed to review the draft report of this Assessment and their input is reflected in this report.

2.10. Process Chronology

2022

2.10.1. 15 June – Workplace Relations Commission proposed an independent assessment of the roles, responsibilities and pay of Medical Laboratory Science Grades.

2.10.2. 5 July – Informal meeting with CERS/HSE and Medical Laboratory Scientists Association (MLSA), with the Assessor to discuss assessment process and terms of reference.

2.10.3. 20 July – Formal meeting with Assessor, Medical Laboratory Scientists Association (MLSA) CERS/HSE, and Departments of Health

and Public Expenditure and Reform to discuss assessment process and selection of hospital sites.

2.10.4. 21 July – Proposed data collection form and assessment methodology provided to the parties by the Assessor.

2.10.5. 3 August – Laboratory Disciplines and Hospital sites confirmed along with contact details for 35 post holders across three Medical Science grades.

2.10.6. 5 August – Final template letter and data protection form to be issued to post holders.

2.10.7. 8 August – Data collection forms issued to 33 post holders for completion by 28th August. (This date extended after the request of some post holders.)

2.10.8. September – Written submission provided by MLSA.

2.10.9. 16 September – Written update provided to the parties and arrangements for Hospital site visits confirmed.

2.10.10. 23 September – Site visit, Bantry General Hospital.

2.10.11. 28 September – Interview with Hospital Group laboratory Manager.

2.10.12. 29 September – Site visit, University Hospital Limerick.

2.10.13. 30 September – Site visit, St. Vincent's University Hospital.

2.10.14. 4 October – Site visit, The Coombe Women and Infants University Hospital.

2.10.15. 4 October – Meeting with MLSA representatives.

2.10.16. 6 October – Correspondence from Assessor to CERS/HSE suggesting an agenda for the meeting scheduled for 14th October.

2.10.17. 7 and 10 October -Contact with Forsa Trade Union.

2.10.18. 10 October – Correspondence with Clinical Director, Pathology Services.

2.10.19. 12 October – Interview with Consultant Biochemist and correspondence with Biochemist grade post holder.

2.10.20. 14 October – Receipt of additional written submission from MLSA.

2.10.21. 14 October – Meeting with Department and HSE representatives. Confirmation that the "Nominated Person" to provide technical expertise re laboratory services as part of the assessment, was now not available and that an alternate individual was now being sourced.

2.10.22. 17 October – Assessor advised the parties that because of the delay in awaiting a "Nominated Person" to provide expertise to the assessment, and the requirement for additional information from

Biochemist grades, that the date of completion of a draft report was being extended to the week ending 18th November.

2.10.23. 18 October – Interview with Forsa, representing Biochemist grades, and follow up correspondence.

2.10.24. 21 October – CERS/HSE advises that a second person approached to act as a "Nominated Person" to provide technical assistance in the assessment process was not available to assist, and that an alternative would be sourced.

2.10.25. 27 October – Correspondence with Clinical Director, Pathology Services, Level 3 hospital.

2.10.26. 27 October – Interview with Consultant Chemical Pathologist, Level 4 hospital.

2.10.27. 28 October – Interview with Clinical Director, Pathology Services, and Level 4 hospital.

2.10.28. 1 November – Correspondence from Forsa Trade Union, facilitating contact with Principal Biochemist reporting to Consultant Biochemist in a Level 4 hospital. Contact facilitated by ACBI. A data collection form was submitted to that identified Principal Biochemist post holder.

2.10.29. 6 November- Data collection form returned by Biochemist Grade, Level 4 Hospital (visited as part of this assessment)

2.10.30. 11 November- Data collection form returned from Principal Biochemist in Level 4 hospital (not visited as part of this assessment) with a Consultant Biochemist in situ.

2.10.31. 15 November- Individual with specific expertise in laboratory governance identified to assist in the Assessment process.

2.10.32. 18 November- 30 November- Draft Report shared with external expertise, deliberated on.

2.10.33. 8 December- Sanction received to proceed to take external expertise input into account in finalising draft

2.10.34. 9 December- Draft Report completed and forwarded to MLSA and HSEA for comment to be received by 16th December prior to finalization.

2.10.35. 15 December – Request from Employer side for extended time to complete a response to the draft report. A revised date of 13 January 2023 was confirmed to both parties.

2.10.36. 16 December – Written comments received from MSLA.

2.10.37. 13 January 2023 – Employer side confirmed conclusion of response to the draft report to be forwarded for consideration.

2.10.38. 18 -22 January 2023 – Final report drafted having regard to written submissions made by the parties on the draft report. Additional academic expert assisted in determining whether the correct assessment and verification process had been applied

2.10.39. 24 January 2023- Final Report completed and issued to the parties.

2.11. Job Evaluation Schemes in the Health Service

2.11.1. While it is the case that there are no agreed job evaluation schemes in the Health Services for grades above Grade 6, agreed schemes have existed in the Irish Health Services since the early 1970's for grades at or below Grade 6. The principal scheme applied to Clerical and Administrative posts [Grades 2-6] and the principal factors associated with that scheme as well as variations thereof, have been applied on a once off ad-hoc basis to evaluations of other grades. The revised scheme, limited to Grades 2-6, has been introduced from late 2016 and further extended to non-analogous grades on a phased basis. The factors identified in that scheme fall to be considered under the following headings:

1. Professional and Technical Competence
2. Problem Solving
3. Decision Making
4. Responsibility and Accountability
5. Communications

2.11.2. The report of the Public Service Benchmarking Body [June 2002] detailed generic descriptions relating to various grades within the Health Services. The second report from that Body [2007] confirmed the continued application of the Job Evaluation Scheme originally applied in the 2002 report. The Public Service Benchmarking Body prepared a bespoke job evaluation scheme, adopting an analytical approach based on points assessed per grade utilising the following factors:

(i) Knowledge and skills
- Education
- Experience
- Breadth and Depth of Knowledge

(ii) Judgement
- Precedent and Practice
- Variety of Problems
- Creativity and Complexity

(iii) Leadership and Teamwork

(iv) Accountability and Responsibility
- Making Decisions
- Responsibility for Resources
- Job Impact

(v) Interpersonal/Communications Skills

(vi) Physical Demands and Coordination
- Strength and Stamina
- Coordination and Dexterity

(vii) Conditions and Emotional Demands

- Working Environment
- Emotional Demands

Both Benchmarking reports were governed by terms of reference which stipulated that cross sectoral relationships were incompatible with the benchmarking process.

2.11.3. The Office for Health Management developed a competency framework for Clerical/Administrative to Senior Management roles within the Health Services over a three year period in the early 2000's, completed in 2004. The competency framework provides guidance on the application of 14 competencies across grades from grade IV to General Manager and membership of the Senior Management Team. The framework also allows for comparison between competencies expected from each range of grades.

2.11.4. Equal Opportunities/Diversity policies within the HSE stipulate that promotion and regrading will be decided on objective criteria relevant to the objectives of the job. Accordingly, the adoption of analytical approaches to job evaluations have been designed to exclude the possibility of gender or other discriminatory bias through the adoption of objective criteria.

2.12. Methodology Adopted for this Assessment

2.12.1. In the absence of an agreed evaluation scheme for Health Service Grades above Grade 6, the methodology adopted exclusively for this once-off Review exercise has had regard to the background and principles associated with the implementation of job evaluation processes within the Irish Health Services as set out in section 2.11 above. The factors identified as being appropriate for adoption in respect of this exercise is based on an analytical approach assessing the grade against the following factors:

1) Professional and Technical Competence
2) Problem Solving
3) Judgement and Decision Making
   - Type of decisions
   - Impact on Decision Makers
4) Responsibility and Accountability
   - Leadership and Teamwork
   - Resources Management
5) Communications
   - Level of Contacts
   - Interpersonal Skills

The above factors can be defined as including the following:

2.12.2. Professional and Technical Competence

- The knowledge and competence typically required to perform the duties associated with the post. This includes all technical, specialist, procedural and organisational knowledge required to perform the job to a competent standard.
- The length of time reasonably required in direct or indirect work experience to reach a competent standard in the role.

2.12.3. Problem Solving

- The intellectual challenge associated with the problems the grade holder is required to solve
- The intellectual analysis, including research, required to resolve a problem
- The independent initiative and innovation reasonably expected of a grade holder in resolving a problem.

2.12.4. Judgement and Decision Making

- The nature of the personal accountability for decision making for which the post holder is personally responsible
- The level of influence the grade holder has on decision makers
- The extent to which the grade holder is consulted by decision makers prior to decisions being made
- The nature/complexity/level of decisions that the grade holder is consulted on/has influence on

2.12.5. Responsibility and Accountability

- The level of responsibility for supervision direction and coordination of other staff
- Responsibility for financial resources
- Responsibility for physical resources and assets
- The responsibility of the post holder for the processing and maintenance of physical, intellectual primary and electronic/information assets across the organisation

2.12.6. Communications

- The levels at which there are ongoing contacts with people/other post holders within the organisation and external to the organisation
- The nature of the communication and the interpersonal skills and competencies required to communicate

2.13. Compliance with Health Sector Pay Policy

2.13.1. The Assessment has had regard to the provisions of public pay policy for the Health Sector and, in particular, the provisions of HSE Circular 30 September 2013 which specifies adherence to the Department of Health Consolidated Salary Scales. The broader public pay policy context is as per the Public Service Agreement, "Building Momentum" and the employer side has referenced that agreement in any engagement on the outcome of this assessment.

3. Background and Policy Context

3.1. Introduction and Context, 1950s to 2000

3.1.1. Medical Laboratory Scientists began to discharge responsibilities in the Irish health services in the late 1940s/early 1950s as laboratory technicians. In that time and in parallel, Biochemist grade staff also staffed biochemistry laboratories. Laboratory Technicians organised as a specific section of the Workers Union of Ireland in 1958, and the 1960s featured a range of industrial disputes regarding core salary and on call fees and further organisation of medical laboratory technologists as an independent negotiating body within the WUI. With the publication of the Fitzgerald Report in 1968 there was a recognition of deficiencies within the acute hospital sector in scientific expertise in laboratories to complement the clinical diagnostic services provided by consultant pathologists. This led to the regularisation of academic qualifications for entry into biochemistry grades and following the publication of the Murphy Report in 1970, the establishment of academic courses in Dublin and Cork Colleges of Technology for laboratory technicians and the establishment of a new grade of Laboratory Technologist. The establishment of the Academy of Clinical Science and Laboratory Medicine in 1974 as the professional body for Medical Technologists, and later Medical Scientists, served to promote continuing professional development for medical technologists. The Murphy Report was also central in establishing new grades and designations and formally adopting the designation of Technologist.

3.1.2. The question of potential linkages in both pay and career structure between Medical Laboratory Technologists and Biochemists in Chemical Pathology was raised from the early 1970s with other linkages being advocated toward the end of the decade between Biochemists and Medical Physicists, and between Medical Technologists and Medical House Officer Grades.

3.1.3. A grading structure agreement was finalised in 1981, which recognised the following pathology disciplines for Medical Laboratory Technician grading structure purposes:

- Clinical Biochemistry
- Haematology
- Blood transfusion
- Microbiology
- Histopathology
- Immunology

3.1.4. The 1990s saw continued advocacy on the part of Medical Technologists for linkages in pay with Biochemist grades. In addition, broader advocacy for pay reform across health professionals resulted in the commissioning of the Report of the Expert Group on Various Health Professionals, which published its report in April 2000. The report was confined to an examination of ten health professions represented by IMPACT Trade Union, including Biochemists. The report, while noting a claim made by Biochemists for a pay relationship with Medical Physicists, also indicated that the Expert Group gave consideration to a potential combined career structure for both Medical Technologists and Biochemists. The Expert Group noted that the management submission proposed a common entry grade for what it described as "*two distinct professional groups of employees whose duties overlap significantly*

i.e. Biochemists and Medical Laboratory Technicians/Technologists". These submissions were rejected by the staff side and the Expert Group did not find it possible to make any recommendation on the future staffing structure for Biochemistry Laboratories "*because of the wide divergence of views*". In those circumstances the Expert Group recommended that direct discussions be established and assisted, if necessary, by an independent exercise which would:

- "Evaluate the academic standing of the different degree programmes [B.Sc. and BMS degrees]
    - determine the differences in the role of biochemist and that of medical laboratory technician at basic, senior, and principal/chief levels
    - determine the requisite qualifications needed for promotion to senior and principal biochemist posts "

The Expert Group also recommended that the individual claims for the upgrading of posts within the existing criteria for specialist work be included in the discussions.

3.2. Background and Policy Context, 2000s

3.2.1. The Expert Group on Medical Laboratory Technician/Technologist grades was established in late 1997. Although it had its origins in Labour Court Recommendation proposals to address pay claims under the PCW Public Service wage agreement at the time, the deliberations of the wider Allied Health Professionals Expert Group *vis a vis* a potential unified career structure within Biochemistry/Chemical Pathology laboratories, were taken into account in making recommendations. In summary, in its final report of February 2001 the Expert Group reached the following findings and recommendations:

a. That there had been rapid evolution of laboratory services over the past 20 years with Medical Scientists playing a major part in such developments across laboratory disciplines including Biochemistry.
b. That there had been major educational development within medical science including the introduction of Honours degree programmes which included a clinical placement year, and that the profession was now totally graduate entry.
c. A re-designated title of the profession as Medical Scientist.
d. That based on the evidence of the site visits undertaken by the Expert Group, an examination of all submissions made to the Expert Group of Various Health Professionals, that there had been a progressive elimination of any distinction between Biochemistry and Medical Scientist grades, although it acknowledged that such distinctions "may still remain at higher levels". The Expert Group also pointed to the developments of other laboratory disciplines and lack of any evidence that such disciplines had lagged behind the development of Clinical Biochemistry or that Clinical Biochemistry laboratories that were not staffed by Biochemists had been adversely impacted in their development.

3.2.2. On the basis of findings set out above, the Expert Group saw no reason to retain the existing separate salary structures for Medical Scientists and Biochemists, and made recommendations on a unified salary scale, with some modifications for proceeding beyond points of the scale where appropriate qualifications were not held. With regard to Chief Medical Scientists, it was recommended that the distinction between Chief I and Chief II should be eliminated, and a scale equal to that payable to Principal Biochemists be applied.

3.2.3. The implementation of a pay relationship between the Biochemist grade salary scales and Medical Scientist salary scales was short lived as the Public Service Benchmarking Body 2002 considered the Medical Laboratory Scientists, as what was then known as a "marker grade" for the purposes of benchmarking process. The consequences of this decision were that while Medical Laboratory grades were subject to examination in the benchmarking process, the Biochemistry grades were linked to a separate marker grade, i.e. Therapy grades, for the purposes of the benchmarking exercise and were not specifically examined. The net consequence of this series of events meant that the pay relationship recommended by the Expert Group and implemented in 2002 was replaced with separate pay scales between Biochemist grades and Medical Scientist grades from the date of implementation of the Public Service Benchmarking awards.

3.2.4. In addition to recommending a pay relationship between existing Medical Technologist grades and Biochemist grades, the Expert Group also recommended that additional grades of Specialist Medical Scientist and Laboratory Manager would be established. The recommendation in respect of the Laboratory Manager grade anticipated that this would apply to certain Chief Medical Scientists in named large acute hospitals and that the higher grade of Specialist be established to reflect the range and responsibilities of those staff.

3.2.5. The Medical Laboratory Service Review Group also gave rise to discussions which took place across a range of headings including the consideration of whether a new policy on training and career structure in Clinical Biochemistry Laboratories could be agreed. A round table group was established, consisting of an independent chair and representatives of the academic bodies in Biochemistry and Medical Science. The round table group made a series of recommendations supporting a complementary career structure for both Biochemist grades and Medical Scientist grades as well as an identification of issues requiring additional discussion. It is understood that due to some opposition from some representative groups those recommendations were not implemented

3.2.6. While the MLSA continued to advocate strongly for restoration, the implementation of the new grades of Laboratory Manager [October 2002] proceeded. In addition, the upgrading also took place of individuals in charge in multidisciplinary laboratories then graded at Senior Medical Scientist, up to Chief Medical Scientist, where such individuals were in charge of multidisciplinary laboratories with six or more staff.

3.2.7. Following the issuing of LCR 18291, the grade of Specialist Medical Scientist was also established, effective from the 1st December 2005, on the basis of no additional posts being introduced/created over the existing complement of Medical Scientists.

3.2.8. The question of restoring the pay relationship between Medical Scientist grades and Biochemist grades was again processed through the Industrial Relations machinery in 2005, and then through the second Public Service Benchmarking structure. The second Public Service Benchmarking Report [2007] acknowledged that there had been a departure from the recommendation of the Expert Group Report of 2001, that Medical Scientists be paid at the same scale as Biochemist grades. The Benchmarking Body stated for the record

that this departure did not arise from a direct decision of the previous Benchmarking Body, but had come about as a result of the operation of pay linkages between what were known as "B list grades" which were not examined by the Public Service Benchmarking Body and which included Biochemist grades.
As pointed out above in para 3.2.3, the Biochemist grades were not examined under the benchmarking process but placed for consideration as a "B list grade" relating to Therapy grades and the Medical Scientist grades were identified as marker grades for "B list grades", including Technical and Engineering grades within the health services.

3.2.9. Following a period within which the Financial Emergency Measures Act 2013 dominated discourse around public sector pay, in January 2020 the MLSA sought to re-engage with the HSE with a view to what was described as "…*restoring previously held pay parity with Clinical Biochemists".*

3.2.10. The regrading of Medical Laboratory Aides, following an evaluation in late 2019 and which led to a higher starting salary for that grade over Medical Scientists, also leant a sense of urgency to discussions which commenced with the HSE and Department of Health in June 2002. Following protracted negotiations, which included the assistance of the WRC, no progress was reported between the parties and in November 2021 the MLSA balloted for industrial action. There followed a period of sectoral bargaining under the "Building Momentum" agreement and, in the absence of progress, the parties agreed to refer the issues, including the issue of pay relationships with Biochemist grades, to the Public Service Agreement Group. Further engagement under the auspices of the Public Service Agreement Group did not result in agreement however and the MLSA served notice of industrial action, which took place on 18 and 24 May 2022. The Labour Court then intervened and further industrial action was deferred to allow for discussions to take place chaired by the Labour Court. Those discussions ultimately resulted in a set of proposals which included the commissioning of this assessment and adjustments to the starting scale for basic grade Medical Scientists to address the anomaly following the grading revisions to Medical Laboratory Assistants.

3.3. Relevant service developments in Laboratory Services

3.3.1. The Terms of Reference for this Assessment process are focussed on whether there are comparable pay relativities between Medical Scientist grades across the full range of laboratory disciplines, (including Biochemistry) with Biochemist grades. The Assessor is cognisant that when the Expert Group undertook its examination of laboratory grades over an almost three year period from 1997, the staffing structures, responsibilities, laboratory structure, and governance arrangements were very different to the arrangements now in place across all such headings. In order to assess the potential relativity between the grades, the Assessor has had regard to the respective development of the grades having regard to the development of medical scientific and biochemistry roles across laboratory services. Particular regard has been had to the key service developments and policy framework that has evolved since the late 1990s/ early 2000s, and those developments are briefly summarised below.

3.3.2. The report of the Medical Laboratories Service Review Group [October 2001] reflected the developments in hospital laboratory services in the 1990s from a staffing workload, costs and work organisation viewpoint. The report reflected the increasing demands on pathology services with significant growth in numbers of requests for investigations and an increasing range of investigations becoming available. The report also reflected the practice of pathology becoming progressively more diverse and complex with specific speciality expertise being developed across pathology disciplines, with hospital consultants developing specific specialty interests within those disciplines. The report also reflected that the evolution of laboratory services, in the absence of an overall strategic framework, meant that the services reacted to demands from clinical services, national health developments, and scientific developments, and as a consequence, there had been limited planning in terms of technological/scientific skills, staffing levels, and planned response demand implications. The report highlighted the lack of a centralised control of core management activities within the laboratories, and the lack of clear accountability for the operational aspects of laboratories through placing laboratory governance within overall hospital governance structures.

3.3.3. The report of the Medical Laboratories Service Review Group [October 2001] also reflected on the increasing sophistication of technology supporting diagnostic laboratory services as well as the potential for the development of Near Patient Testing and the role of information and management technology in assisting with processing specimens more efficiently and improving quality of input and turnaround times for test results. The report also identified the upcoming requirements for accreditation of laboratories and improved quality assurance and quality control, and envisaged that "*increasing workloads and decreasing turnaround times may result in laboratories being unable to pay sufficient attention to Health and Safety, Quality Assurance, Continuing Professional Development, laboratory protocols, standard operating procedures or communication, particularly with the users of the service*" (see page 21 of the report). The report also highlighted the ongoing requirements for research and development and the application of the knowledge and skills acquired in a clinically focussed environment, as well as Continuing Professional Training and Development. The 2001 Review Group report was referenced in the HSE Circular 22 March 2002 authorising the implementation of revised titles, qualifications, and salary scales at levels applicable at that time to Biochemist grades.

3.3.4. The Teamwork report commissioned by the Health Service Executive "Implementing a New System of Service Delivery for Laboratory Medicine Services"[2007] made radical recommendations in respect of a restructure of laboratory services within the HSE. While the report was not implemented, it reflected on the then status of laboratory services within the HSE and commented as follows:

"*KEY MESSAGES ABOUT THE CURRENT SYSTEM*

The benefits of the current system include:

- *All hospitals with accident and emergency, critical care and major surgery facilities, and, if available, maternity and paediatrics, are supported by hospital laboratories;*
- *Sufficient arrangements for the quality of processing of individual tests, as far as we were able to ascertain; and*
- *Numerous examples of good clinical and organisation practice, including clinical networking, 'hub and spoke' arrangements and use of point-of-caring testing.*

The risks and problems of the current system include:

- *Whole system quality is not good enough, there are some laboratories with no disciplines accredited, there are some laboratories with only a few individual disciplines accredited and no laboratories where all the disciplines are accredited;*
- *'Hot' and 'cold' tests from hospitals and GPs are processed together and delivered in a 9-5 timeframe, with limited work processed outside this period at premium cost;*
- *Much clinical focus is on core test processing and reporting tasks with limited time available for more direct patient clinical input and research and development*;

- *Heavy administrative burden associated with the lack of a unique patient identification system, outdated laboratory information technology systems and poor connectivity; and*
- *Future healthcare models indicate major changes in the location of healthcare delivery with much more care being provided at or close to home, which will increase the demand from primary care."*

3.3.5. The Teamwork report also reported on examples of good practice in place. This included effective clinical networking such as Clinical Haematology and Neuropathology, use of point-of-care to support front line and out of hours laboratory services, and "hub and spoke" arrangements between laboratories with General Practice work with Microbiology, and Histopathology at the hub. The report was also critical of the limited laboratory information systems, including the electronic reporting of GP requested results, and highlighted the small proportion of laboratories that had obtained accreditation at that time (4% accredited and 26% either conditionally approved or awaiting assessment). The report also reflected the workload volume across laboratory disciplines as at September 2006. Of the approximately 58,000,000 tests and requests for tests processed annually through acute hospital laboratories in the HSE, approximately 47,000,000 of those were processed through Biochemistry and Immunoassay. Between 26% and 36% of that workload was documented as generated from General Practitioner and Primary Care settings. The report also pointed to what it described as "*inflexible organisational and working arrangements*" *which were stated to include:*

- Separate sample handling departments in each discipline within the same laboratory.
- Prioritisation of hospital requests over GP requests.
- Duplication of similar equipment across disciplines and assays retained in a discipline when they could be more efficiently done in another discipline.
- Limited ability on the part of laboratory management to implement changes to improve efficiency.

(In its response to the draft report the MLSA wished to place on the record the significant flexibility provided by Medical Scientists to the Health Service under the 2011 Laboratory Modernisation Agreement, which provided for an 8 am to 8 pm extended routine working day, and a revised out of hours payment schedule. The MLSA has stated that the agreement provided a verified 10 million euro in year on year efficiencies to the HSE.)

3.3.6. The increasing requirements for accreditation of laboratory services became an additional core responsibility across Medical Scientist/ Biochemist grades and laboratory management particularly from the mid-2000s. A series of European Union blood traceability and haemovigilance directives from 2004 and 2005 led to requirements under Statutory Instrument 360 of 2005 for all blood bank laboratories to comply with international standard ISO 15189 by November 2008. The Statutory Instrument sets out clear legal obligations on the part of "*a person responsible for the management of a hospital blood bank*". These requirements are an addition to the general requirements under ISO 17025 for the competence of all

testing and calibration in laboratories. Those additional criterial for medical laboratories under ISO 15189 include:

- Providing advice on the type of sample and testing that may be required;
- Interacting with clinical staff with the laboratory responsible for the quality of service to clinicians referring patient samples for testing;
- Providing opinions on results of testing relative to diagnosis and patient care;
- Collecting samples or providing information on collection procedures, sample containers, and sample volumes;
- Ethical practice.

3.3.7. The Irish National Accreditation Board (INAB) has been the recognised accreditation body in accordance with the relevant International Organisation for Standardisation since its establishment in 1995. The increasing obligations on each laboratory discipline to achieve and maintain accreditation through submitting for INAB inspection has become a core responsibility principally of Medical Scientist grades. In the majority of laboratories, specific responsibility across quality management and compliance, accreditation, preparation, and maintenance, has been included as a core responsibility of the Chief Medical Scientist, and in other instances specific quality roles have been established in some Level 4 hospitals at Chief Medical Scientist level to specifically have responsibility for quality management, including accreditation.

3.3.8. It is noted that additional European Union directives throughout this period have led to additional compliance and accreditation responsibilities across a range of laboratory disciplines, e.g. the European Tissues and Cell Directive [2004/23/EU], mandatory accreditation for Immunohematology, Blood Transfusion [ISO 15189:2012].

3.3.9. The National Near Patient Testing Consultant Group was originally established under the Faculty of Pathology of RCPI and has produced separate booklets and guidelines regarding the safe and effective use of NPT within hospital settings and in community healthcare facilities which can be accredited through the local hospital pathology service. Responsibility for Near Patient Testing has largely devolved to medical Scientist grades and it is envisaged that with the full implementation of the Invitro Diagnostic Medical Device Regulation in 2022, and the accreditation requirements under ISO 15189/22870, there will be an increasing range of responsibilities in supporting the development of NPT both at hospital level and within the community. The Report states as follows…

"*As the POCT service continues to expand in the nature and types of devices and analytes available, the service requires additional staffing to ensure all scientific and clinical staff utilise the resources in the most appropriate way- this requirement discussed at POCT committee meeting in 2021 but is awaiting further development.*

Upgrading of Glucose meters and Foetal Fibronectin and urine hCG to password protection, IT connectivity, user lock out.

On-line video recording of training presentation.

POCT Education in Universities – POCT modules – contribute to CORU CPD requirements

Extension to scope for additional tests on Blood Gas Analysers

Increase number of POCT devices in clinical areas, e.g. Urinary hCG Clinitek in wards, Foetal Fibronectin."

3.3.10. The development of Information and Technology systems across laboratory disciplines has increased exponentially in the past two decades. Such developments have been initiated and embraced by Medical Scientists across all laboratory disciplines and by Medical Scientists and Biochemists in Chemical Sciences/Biochemistry. In 2006 Healthlink introduced Lab Order functionality, giving GPs and Practice Nurses the ability to order blood tests online, replacing the manual order form in selected pilot hospitals. Lab Order allows users to choose from a definitive set of tests for the patient and then print the order form (including a barcode) which is sent with specimens to the lab. Upon receipt in the lab, the form is scanned by the bar code reader and the order is immediately accessible on the system. There are many benefits to both GP practices and labs including elimination of illegible and incomplete order forms. An electronic record of all orders placed by GP practices also facilitates quicker turnaround of orders and results. This service is available in the Mater Hospital, St. James's Hospital and Cavan General Laboratories. However, while Health Link has facilitated speedier access on line to test results there is a level of frustration across laboratory staff and management that for the vast majority of laboratories, including those that were the subject of site reviews during this assessment, manual inputting of test request data remains a delaying link in the chain of timely analytical reporting to the treating clinician in both hospital and primary care settings. It has been envisaged that the HSE's MedLIS project would roll out similar arrangements across each of the 43 hospitals that provide diagnostic laboratory services but it is understood that delays due in part to the 2021 Cyber attack on HSE systems and other factors have delayed such a roll out.

Notwithstanding this, information technology innovation has continued to be a feature of timely and quality driven laboratory services with Medical Scientists centrally involved in those developments. A case in point is the following contribution from a basic grade Medical Scientist who was met as part of this Assessment and outlined some of the "work arounds" necessary to continue services during successive cyber-attack crises.

"in December it caused massive disruption to how we provide our service. We had to rapidly adapt and continue to provide the service expected of us. The lack of IT systems and interfaces meant the only means of communicating any result of a patient was through a phone-call. This doubled our already heavy workload. The Cyberattack put immense pressure on us as a laboratory. It was very difficult to provide a service with non IT systems and interfaces. Phones were ringing constantly. Additionally, we had to provide blood and blood-based products without the safe-guarding of our IT systems. Traceability labels had to be handwritten which was less than ideal. We all stayed late, came in early and came up with new ideas to ensure patient outcome was not compromised to the very best of our ability. Ideas of mine included the pre-labelling of red cell units with traceability labels that contained the donation number and expiry. This reduced the time required to handwrite traceability labels in the case of an urgent transfusion requirement or in an emergency."

3.3.11. The compliance requirements of the EU General Data Protection Regulation (GDPR) (2016) has been identified by Chief Medical Scientists, in particular, as presenting additional challenges to managing laboratory data and exercising data control functions including the provision of clear pathways to processing personal data for research purposes and for biosecurity.

3.3.12. On 31st March 2019 CORU opened the Medical Scientist Register. There followed a two year transition period to allow for the registration of current practitioners in the system prior to the availability of the approved qualifications now required by CORU for registration as Medical Scientists. CORU will also be the regulatory body for Biochemists and the steps necessary to establish such registration are awaited. From May 2021 registration with CORU has been a pre- requisite to practice as a Medical Scientist. Ongoing additional responsibilities on Medical Scientists as a consequence of registration include:

- Compliance with Continuing Professional Development requirements
- Being subject to a Code of Professional Conduct and Ethics
- Being subject to scrutiny by the Fitness to Practice Committee of CORU
- Compliance with stated standards of proficiency for Medical Scientists
- Obligation to annually register from 31 March 2021 to be eligible to continue practicing as a Medical Scientist.

3.3.13. "The Future of Healthcare – Sláintecare" report was published in 2017. The HSE adopted the recommendations set out in that report which centred on revised structures and operations which would incentivise patients accessing care at the lowest level of complexity.

Limitations on access to diagnostics including clinical laboratory diagnostic testing is acknowledged to be a major barrier to the optimum development of the primary and community services that are so integral to the Sláintecare vision.
Despite the challenging workforce and other resource issues facing Irish public clinical diagnostic laboratories, and the additional pressures of the COVID-19 pandemic since 2020, the MLSA has submitted that medical scientists have continued to improve services to primary care and to lay the groundwork for further service improvements. The MLSA provided a number of examples in their written submissions to this Assessment process which they state demonstrate what can be achieved with the necessary focus, resources and multidisciplinary clinical teams.
The MLSA further submitted that Medical Scientists are highly educated and competent health professionals and are qualified, competent and ready to deliver the changes necessary to implement the Sláintecare agenda.
The examples provided include the following:

- Integrated Ambulatory Care Heart Failure Project run collaboratively between University Hospital Waterford (UHW) and South-East Community Healthcare (SECH)

"*This project sought to further develop the Pilot Outreach Heart Failure services in Dungarvan/West Waterford to deliver effective, patient-centred, integrated care, to better meet the needs of the local HF population.*
– The current pilot-outreach service in Dungarvan was enhanced to address unmet service needs, including the establishment of a co-located outreach cardiac echocardiogram service and an outreach Cardiac Rhythm Management Service.

The project received funding from the Sláintecare Integration Fund in 2019 and its success was reported in the Sláintecare Projects in Action newsletter in 2021.

This project has improved the quality of life of patients with Heart Failure, through

- ❖ *Improvements in access to diagnosis and quality of service delivery; delivered in the main in an appropriate primary care setting*
- ❖ *Hospital avoidance and supported discharge through tailored and follow up care"*

- ***Provision of Blood Transfusion Service to Patients in Community (Non-Acute) Facility***

"*In the past, where there has been a requirement for a non-acute patient in an off-site facility to receive blood transfusions this has had to be carried out in an acute hospital setting. This would typically be a patient in either a hospice or a step-down facility. Typically, on each admission a patient would receive two transfusions given over eight hours. The preparatory work on the patient could take up to one hour and the preparatory work by the Laboratory would take a minimum of two hours. This timeframe required the patient to be moved from their facility by ambulance to an acute bed in a hospital typically for one day with an overnight and then returned by ambulance to their facility the following day. In addition to the inconvenience to the patient of having to move, the use of an acute care bed for a non-acute procedure is not the best use of a valuable, expensive and limited resource.*
Medical Scientists in a number of sites have facilitated the move from transfusion of these patients in the acute setting to being able to receive their transfusions in their own facility, thereby freeing up acute beds. The organisation and planning that goes into enabling transfusions off site is extensive and thorough one. It involves:

1. *Preparation of new documentation including Service Level Agreements between the Laboratory and the facility, Standard operating procedures for every part of the process and validation of all these steps.*
2. *Training for staff in the facility in all aspects of the transfusion process, from patient identification to sample taking, administration of the transfusion and investigation of transfusion reactions.*
3. *Training for those transporting the blood units and training for Laboratory staff in off-site transfusion management.*
4. *All of the procedures and staff would then be assessed by INAB for accreditation.*

The whole process would typically take up to year and has been facilitated by Medical Scientists over the past number of years in a number of sites. This could be expanded to all similar off-site facilities with benefits both to the patient and the acute service. One such facility that currently provides the service to patients is the Galway Hospice in conjunction with Galway University Hospital."

3.3.1. Since early 2020, laboratories in all 43 acute hospitals have been adapting to meeting the service demands associated with the Covid-19 pandemic in addition to servicing normal acute hospital and primary care diagnostic workloads. This adaptation has included the introduction of bespoke Microbiology services in Level 2 hospitals without an existing Microbiology service. Medical Scientists were also centrally involved in sourcing innovative solutions to meet a shortage of a key reagent for PCR testing –"Viral Lysis Buffer". A consortium of Chief Medical Scientists, Specialists, and Laboratory Managers was established nationally, who were able to successfully establish an agreed protocol of constituent chemicals for this reagent in co-operation with academic institutions. This led to validation of the reagent and its introduction in use in the laboratory, allowing urgent PCR testing in hospital for all patients and staff. This was then also extended to the community.

3.4. Strategic Review on the Future Development and Role of Medical Laboratories

3.4.1. The outcome of the above Review is awaited, accordingly it has not been possible to take into account any relevant recommendations from the Review in completing this report.

4. Additional developments identified by interviewees and those who returned data collection forms

4.1. Introduction

4.1.1. Interviewees across Medical Scientist Grades highlighted the following significant service developments specific to their laboratory/service specialty in addition to the areas summarised in section 3 above.

4.2. Service Development

"There have been massive changes in automation and a move towards fully automated blood sciences. Due to the introduction of Blood Sciences, there has been an expansion of the test repertoire available. Working as part of the Blood Science department involves ongoing collaboration between Haematology, Serology, and Biochemistry to enhance the service we give patients. The new Biochemistry equipment and blood Science project has reduced TATs (turn around times) and has greater testing capacity, which has a positive impact on hospitals resources by aiding in patient flow through ED and AMU, allowing early discharge and more efficient bed management. Providing monomeric prolactin measurement in-house has improved TATs and reduced costs. This test reduces unnecessary further testing of patients with significant macroprolactinaemia, saving time and resources. Immunology/other disciplines service demands have grown as a result of new ideas, technologies & automation, and the growing needs and requirements of service users for more complex assay systems. As a result, the scope of clinical practice, and engagement at the clinical interface has been expanded; although this has not always been acknowledged. Increased workloads have required creative and innovative approaches to demand management. This includes wider engagement with/education of service users to maximise efficient patient centred service. In the past, histo-dissection would only be performed by specialist registrars or consultant pathologists. Now, increasingly these roles are being carried out my medical scientists at both senior and staff grade."

"There have been expansions in the services offered to patients by the hospital, which have placed demand on the haematology and transfusion services. In recent years, Routine Antenatal Anti-D Prophylaxis (RAADP), was introduced. Facilitation of the introduction of

this service required the Chief medical Scientist to become a key member of the committee established to develop the care pathway".

Ongoing involvement in this (*RAADP*) Routine Antenatal anti D prophylaxis *committee has been required since implementation to review performance and correct issues. This involvement at Chief medical Scientist grade is replicated in all maternity units where RAADP has been implemented. Demand from this initiative increased further in the last few years as the process moved from RAADP for all RhD negative patients to a targeted service, which requires the testing of all RhD Negative antenatal patients to determine the RhD type of their foetus, only giving RAADP where the foetus is found to be RhD Positive. The process changes and logistics required to implement this change and support the service on an ongoing basis have been felt at all Medical Scientist grades where this service has been implemented, in particular at Chief Medical Scientist level*."

"*Advisory Services – As demands on the service have expanded – increased workload, more complex obstetric cases coming through and introduction of new hospital services, there has been an increase in the demand for advisory services from the laboratory. Examples include*

- *Queries on report interpretation, need for Anti-D and other issues related to the targeted RAADP programme.*
- *Advice on products and testing required for patients and specific transfusion requirements.*
- *Advice through POCT committees on requirements for POCT related to haematology to be conducted with best practice.*
- *Training of medical Scientists on when to add advisory comments for iron support*"

"*In particular, the emergence of SARS-CoV-2 and the COVID-19 pandemic brought surveillance scientists into the focus in the hospital and national setting. The requirement to provide accurate, reliable and up to date data on COVID-19 cases to different national bodies via the hospital system, as well as non-hospital-based surveillance scientists providing national data for distribution to the decision-makers as well as the public became apparent. In so doing this, the role evolved. These surveillance systems had to be developed rapidly based on up-to-date literature and local development involving new information systems as well as rapid molecular assays*. "

"*Since entering the professional about 10 years ago, the role of medical scientist has developed enormously into speciality areas expanding outside of the pathology laboratory and into clinical areas and beyond the hospital limits to national and international discussions. Medical Scientists are involved in developments of diagnostic testing delivery as well as areas of IT and data analysis producing valuable research to help keep patient care at the forefront of health sciences. Surveillance is a vital part of the healthcare system and I hope to see the role of the Medical Scientist in the delivery of care continue to evolve and grow*."

"*The extended scope of practice for Medical Scientists is reflected in the completion of training across Level 4 hospitals for medical Scientists*

to undertake Histodissection. This was a task previously carried out by Consultant Histopathologists. The training programme to extend this practice to Medical Scientists has been supervised by Consultant Histopathologists."

" *The Point of Care Testing (POCT) service continues to expand, at the request of service users. The requirements for additional POCT with haematological parameters (e.g. Haemoglobin, Haematocrit) place demands on the Chief Medical Scientist grade to ensure they develop the skills needed to advise service users and the POCT team on the requirements for POCT to be validated and performed in adherence to best practice*. "

4.3. Quality and Accreditation

4.3.1. "*Requirement for accreditation to ISO15189 Standards for Medical Laboratories has resulted in increased workload in supervising the preparation and maintenance of the QMS. Quality Management is increasingly prevalent in the role of the medical Scientist. Work previously done by quality managers is now being undertaken by scientists within the lab*."

4.4. Education and Training

4.4.1. "*Our educational background in all lab disciplines enables us to interpret results in the other laboratory disciplines. The CMS has engaged in extended roles in training, education and research to support evolving service developments."*

4.4.2. " *In terms of career development to reach the post of Chief Medical Scientist, there are no formal structures. Some sites will facilitate will facilitate time* off *to complete an MSc, which is a requirement for promotional posts, though there is rarely any financial support and frequently assignment work, study for exams and completion of a significant amount of practical and/or academic research for the required dissertation must be conducted in your own time. There are few short courses available which would develop the skills and knowledge needed at Chief level (e.g. courses outlining manager's requirements under the European Working time Directive or sick leave entitlements in the public sector: courses in the development of leadership skills; courses in the procurement process and the legal requirements that must be adhered to*). "

4.4.3. "…., *the MSc's which confer eligibility for promotional posts (Senior, Specialise, Chief and Laboratory Manager) tend to be focussed on the higher-level theoretical knowledge of Medical Science and the research skills needed to design and complete an MSc level research project. While these are essential for the post of Senior or Specialist Scientist, the holders of Chief Medical Scientist posts would benefit hugely (in my opinion) from courses including a focus on leadership skills, practical staff management, HR requirements for line managers, procurement, Quality Management System processes and practical approaches to their application, higher-lever review of Quality Control performance and review of method validation data. Such courses need not be at an MSc level and the scope of one MSc would*

be unlikely to encompass all of the above, but the opportunity to complete short courses or modules in the above areas (whether run through a third level institution, professional body or hospital group/HSE) would, in my opinion, greatly aid career development and improve the overall standards within medical laboratories."

4.4.4. " *In terms of formal career development structures to progress beyond Chief medical Scientist level, these are equally poor to non-existent. The only official path open for career progression is to laboratory Manager. Again, there are no formal structures in the form of courses (third level or short courses) provided to Chief medical Scientists to aid their progression to laboratory Manager level. I have no doubt that the demands placed on Laboratory Managers require specific skills to be developed that may not be required at Chief level, but there are no formal structures in place to develop these skills. They can only presently be developed through on the job experiences once the post has been secured."*

4.4.5. "…..there are many Chief Medical Scientists who would prefer a different career progression pathway than through to Laboratory Manager. The Laboratory Manager role is more removed from the Medical Science that draws staff into the profession in the first place. If there were career progression opportunities with formal, structured development opportunities in place, I believe there would be great demand for them. On a personal note, I have recently secured an offer of sponsorship to apply for the examinations to become a Fellow of the Royal College of Pathologists. Sponsorship from a member is a requirement to be able to apply for the examination. I would be applying to complete the examinations in transfusion Science, which has a specific training pathway and designated training posts for scientists in the UK to follow to obtain the aware. There are no support structures, formal training opportunities or training posts available to me in Ireland to obtain the requisite skills and study for the examinations. If I am unable to secure protected time in work to prepare for the examinations, I will have to undertake the large volume of learning required purely in my own time. Regardless of securing protected time, I will have to review the syllabus with my sponsor, identify training opportunities and try to organise training sessions myself with various clinicians and scientists in other institutions to ensure I can cover the entire syllabus."

4.4.6. " *I have been involved in the recruitment of Staff Grade and Senior Medical Scientists over the last ten years. The strengths of the Medical Scientist workforce and the new graduates joining the service is clear from responses at interviews, and if anything, the knowledge base and standard within the profession continues to grow from my own experience. The calibre of appointments made, in particular at Senior Medical Scientist level over the years continues to impress me and gives hope for the future of the profession*."

4.4.7. " *Due to maternity and sick leave, my department has experienced staff vacancies of up to 40% over the last year. While approval has always been received from HR to recruit locum staff for these vacancies, there have been very few appointable applicants. We have had to recruit extends the recruitment process significantly, whereby it can take six months to obtain a visa once a job offer has been made. Additionally, due to differences in work processes, duties and responsibilities in Medical Science from overseas to obtain suitable scientists with CORU registration. This between Ireland and other countries, the training process for foreign nationals can be extensive and can require an adapted approach from a scientist who already has experience in the Irish system*."

4.4.8. " *Currently there are no development structures in place for the role of surveillance. Surveillance scientists range from Senior Medical Scientists to Specialist Medical Scientists to Chief medical Scientists, however, the role has no development structure currently in place."*

4.4.9. " *An ongoing issue with staff recruitment is pay, and friends of my own have left medical scientist position in favour of biochemist roles. Pay parity would go a long way to helping staff recruitment and retention. The historic view of scientists as less skilled or qualified compared to biochemists is archaic when you look at any working laboratory today. It should be possible for a scientist to be supported if they wish to undertake the FRCPath, especially when the HSE has made a point of having a varied and skilled workforce as part of its Service plan 2019."*

4.4.10. "*Working as a Medical Scientist, particularly a Level 3 hospital, the multi-disciplinary experience has provided me with a skillset that allows me to work in multiple disciplines, assist other departments if in need of staff and run a service solo across four disciplines. I not only specialise in the Biochemistry laboratory but can also work in a number of other areas. There is rigorous training*

involved to reach this level and annual upkeep of competencies on top of the annual competencies in my own department. It should be taken into account the level of confidence and training that is required to operate a routine service into a multi-disciplinary on-call service and to provide it to the highest standard. My degree in Biomedical Science has provided me with my initial training, so to speak, in the multiple disciplines, but it is the hard work and maintenance of the skills obtained through training and experience in each department that allow continuous provision of the service and meet the requirements expected of me in relation to patient care."

4.4.11. *"The future needs for Medical Scientists within the Pathology Service were reviewed in 2007 in Implementing a New System of Service Delivery for Laboratory Medicine and the report recommended a national framework of a uniform approach to post-graduate continuous professional development, appropriately funded and specifically targeted at enhancing the individual's skills, competencies, to the benefit of the quality and range of service delivery."*

4.5. Governance

4.5.1. "*Increased capabilities in document (results/kit records/maintenance records/request forms) management due to the installation of DART software. More extensive auditing schedule and other quality management system tasks*.

Development of care pathways. The CMS oversee and engage in expanded programme of clinical audit and risk management; and participate in MDT meetings.

The CMS has had advisory roles with national projects including

- *MedLIS*
- *National Clinical Programme for Pathology (in areas of best practice/guidelines)*
- *Irish National Accreditation Body (INAB) and roles to meet accreditation to ISO15189 Standards for Medical Laboratories*."

"*Changes in regulation over the past ten years have been one of the biggest drivers of development in Transfusion (and Haematology to a lesser extent), which has forced change on my grade. There have been significant additional regulations introduced, the impacts of which have to be risk assessed, documented and controlled as much as possible before change is implemented, the responsibilities for which rest with the Chief Medical Scientist. Examples include:*

- *ISO 15189 – These standards have been reviewed and updated in the last ten years (with another updated set of standards due in the near future). The most recent review added a range of additional requirements, compliance with which required significant changes to work practices (e.g. implementation of annual staff reviews, a formal staff suggestion system, etc.) The focus of INAB technical assessors also changes with each annual inspection and the workload required and skills demanded to meet the expected standard increases continuously.*
- *Falsified Medicines Directive – An EU directive implemented to reduce the chance of falsified medicines entering the single market. As many blood products issued by Transfusion laboratories are classified as medicines, this directive and the associated legislation has had an impact on my grade. Chief Medical Scientists have had to develop systems within their departments to ensure that all applicable products received are verified electronically as genuine before issuing them to patients. This had added yet another layer of regulation that must be complied with on an ongoing basis*."

"In Vitro Diagnostic Medical Devices Regulation (IVDR) – This is a new regulatory framework overseeing equipment, reagents and consumables used to test patient samples. Regulation of these devices will be tightened with deeper oversight and more stringently applied standards. Although the implementation is only beginning, these regulations will further impact the demands on Chief Medical Scientist grade in all disciplines."

"The National Histopathology Quality Assurance Programme Implementations 2014, published by the Faculty of Pathology of the Royal College of Physicians of Ireland, emphasises the crucial role that Medical Scientists play in the delivery of quality assurance programmes. In a survey completed in 2011, of all hospitals surveyed (24 hospitals) the Medical Scientist had primary responsibility for managing and monitoring coding of laboratory results in 52% of cases whereas the pathologist led in 39% of cases. The report indicated that quality guidelines are used by both Consultant Histopathologists and Medical Scientists. The Report

explained that the key to success lay in clinical leadership and participation stating 'the involvement and work of Medical Scientists was integral to the success of this programme's implementation."

" Clearer accountability and governance arrangements from Laboratory Managers to Hospital Management needs to be clearer and needs to be regularised nationally."

4.6. Recruitment and Retention

"Recruitment and retention of skilled medical scientists to meet these changing demands has been difficult. The CMS has proactively expanded scope of practice to engage with educators in colleges and universities to encourage students to choose a career in Immunology. Approaches have included lecturing, contribution to degree content and facilitating research projects."

"A parallel career structure for Medical Scientists and Clinical Biochemists has been an acknowledged requirements since 2001 to retain graduates within Medical Scientist grades. "

" Skill mix with an emphasis on a greater proportion of more senior posts will be a feature of laboratory practice due to increasing automation "

"The lack of promotional opportunities for Medical Scientists compared to Biochemists and other health professionals is influencing Medical Scientist graduates to apply and obtain promotional clinical biochemist posts. Accordingly, there is a shortage of applications for entry grade Medical Scientist posts in Biochemistry, whereas entry level clinical Biochemist posts have no shortage of applications".

", ….the challenges in recruitment (and staff retention) over the past five years or so have been significant. Although Haematology and Transfusion positions have traditionally attracted a significant number of applicants, there have been fewer and fewer applicants for permanent Staff Grade and Senior positions over this time. The increasingly litigious nature of practice and the requirement of Transfusion scientists to give evidence in the coroner's court has no doubt impacted on the willingness of Medical Scientists to work in this area without the recognition of the necessary skills required to provide services under pressure. In most areas of scientific work there is time to review results and offer a considered interpretation. In a major haemorrhage time is critical and places additional stresses on the scientist".

"Chief Medical Scientists and Laboratory Managers have reported high levels of vacancies at Medical Scientist and Senior Medical Scientist grades with qualified Medical Scientists favouring available promotional biochemistry posts, opportunities in the private sector, and emigration. Vacancy levels at basic grade in some level 4 hospitals are reported as being at between 20% and 40% of the complement."

"I do not want to comment on another professions grade and structures. It's a profession I have worked very closely with all through my career and deeply respect their professionalism, dedication and their crucial contribution to patient care.
However I hope there is a resolution to the retention and recruitment for their professions as it is having a severe impact on the ability for Biochemists to fulfil their roles, including my own as directed by the Consultant Biochemists, in the delivery of the clinical service and also in its development."
– Principal Biochemist

5. Summary of Comparative Job Specifications between Medical Science and Biochemist Grades

5.1. Introduction

5.1.1. The following is a summary of comparative job specifications based on advertised posts, HSE authorised job descriptions, data collection forms completed for this assessment and interviews with post holders. The summary is also based on "Standards of Proficiency For Medical Scientists" – CORU, Medical Scientists Registration Board. The summary does not represent an exhaustive list of job specifications.

5.2. Biochemist Grade and Medical Scientist Grade

	Clinical Biochemist Grade	**Staff Grade Medical Scientist**
Qualification	BSc (Hons) in subject related to biochemistry/laboratory medicine and diagnostics Or Be employed in the Irish Health system as a Biochemist (as of September 2021) and hold a degree in which Biochemistry was taken as a subject in the final examination	Registered with CORU on the Medical Scientist Registration Board And CORU accredited Bsc (Hons) degree in Medical Science or equivalent, to include a 1000 hours multidisciplinary medical placement Or Equivalent qualification accepted by CORU for existing practitioners registered before 31 March 2021.

Specific Duties	To be involved in the review of tests and biomarkers related to specialist laboratories. To liaise with Duty Clinical Biochemist and clinical specialists. To maintain high analytical quality in his/her assigned area. To liaise with staff in other parts of the hospital or service … on including POCT services. (Where a Consultant Clinical Biochemist is in place, the following apply) To support the Consultant Clinical Biochemists in activities relevant to the hospital. ----------	Policy review, specialised and research development work as determined by the Department Management Team Participation in on-call rota Carry out all duties of a medical Scientist in the laboratory, including the general care of the laboratory and apparatus. Has the ability to work independently as well as with a wider multi-disciplinary/multi agency team. Be responsible for their own work and carry out duties in accordance with laboratory policy.

		Perform analytical testing appropriate in a multidisciplinary laboratory. Perform all activities related to the receipt, analysis and reporting of laboratory specimens to professional standards and ISO15189. Perform all duties relating to Reagent and stock management. Participate and cooperate in evaluating and validating equipment consumables and research and development projects
<u>On Call</u> <u>Education and Training Participation in training/education of other staff</u>	To Participate in the on-call rota in Biochemistry. Acquiring specialist knowledge across a wide range of procedures and …. Understanding of professional, clinical and scientific principles through formal teaching and professional supervision. To undertake formal training, followed by Consultant Clinical Biochemist approval in order to achieve registration as a Clinical Biochemist.	To participate in multi-disciplinary on-call Participation in Continuing Professional Development as required to meet the CORU registration. Facilitate arrangements for educating and training undergraduates, scientific and medical personnel as appropriate.

Administrative	(Where a Consultant Clinical Biochemist is in place, the following apply) To participate in representing the Department at meetings etc. outlining developments and administration tasks in his/her assigned area. ----------	Actively participate in the development of services by liaising with Senior Medical Scientists and Chief Medical Scientists. Participate in the provision of statistical information. Represent the Department at meetings where appropriate

5.3. Senior Medical Scientist and Biochemist

	Senior Clinical Biochemist	**Senior Medical Scientist**
Qualification	Qualification as for Clinical Biochemist and An MSc in Clinical Biochemistry and three years post qualification experience.	Qualifications as for Medical Scientist grade post and An NFQ level 9 MSc in a relevant Laboratory Science or Fellowship of the Institute of Biomedical Science (prior to 1999) And Four years full time clinical experience as a medical scientist in a clinical diagnostic laboratory since qualifying as a Medical Scientist
Duties	To provide biochemistry and endocrinology and Point of Care services to the Department of Biochemistry under the direction of the Principal Biochemist, Consultant Chemical Pathologist, the Laboratory Manager and the Director of Pathology. Striving where possible to bring to the Department new technologies and diagnostics and helping to develop and expand the range of tests currently available.	Participate in the work of the Department taking day to day responsibility for planning, prioritising and supervising the work of the Department. Perform all duties relating to analytical testing appropriate to a multi- disciplinary laboratory. Design and implement structured policies and systems for the management of service delivery in consultation with key stakeholders

	Liaison with requesting clinicians and advising in relation to pathology specimen requirements. Participate in developing procedures within the department to enhance the quality system in place. _____	to ensure clear role accountability for service level, quality and decision making. Actively participate in Quality Management programmes which are patient-centred and which measure audit performance and client satisfaction. _____
<u>Financial</u>		Assists in costing activities within the Department re purchase of reagents and monitoring of equipment maintenance costs. _____
<u>Administrative</u>		Taking a lead role in the management and use of information technology with the department in conjunction with the Chief Medical Scientist. _____
<u>On Call</u>	To participate in the on-call rota in Biochemistry	To participate in multi-disciplinary on-call.

5.4. Principal Biochemist and Chief Medical Scientist

	Principal Biochemist	**Chief Medical Scientist**
<u>Qualification</u>	BSc (Hons) in a subject matter related to clinical biochemistry And MSc in clinical biochemistry And A PhD relevant to biochemistry or Part 1 FRCPath (UK) And Five year's experience in clinical biochemistry, two of which spent in a senior clinical biochemist post ----------	Registered on register of Medical Scientists And Possess level 9 MSc or equivalent level 9 And Seven years full time clinical experience as a medical scientist (2 at promotional post level) Reports to Laboratory Manager and responsible to Consultant head of Department (including clinical chemistry examples where no Consultant Biochemist in situ)
<u>Duties</u>	Co-ordination of clinical chemistry laboratory as determined by Consultant Head of Department Rotation on the Clinical Chemistry Duty Scientist rota. To provide clinical and scientific advice as part of Duty Scientist rota.	Implementation Quality Management System complaint with 1SO 15189 In conjunction with Consultant Chemical Pathologist (in Biochemistry) and Principal Biochemist, to monitor and ensure the quality of analysis and services by the Department

		To optimise the methods and range of investigations by directly evaluating and validating methods and instrumentation.
Management/Governance	To provide advice to clinicians and clinical chemistry staff and to clinicians on the appropriateness and choice of biochemical investigations and their interpretations. To contribute to Point of Care testing. To optimise the methods, and range of clinical chemistry investigators by undertaking and directing evaluation, verification and	---------- In conjunction with the Consultant (Chemical Pathologist in Biochemistry, other consultants in other disciplines. Where a Consultant Biochemist is in situ) together, to lead and co-ordinate staff, ensure that the team is allocated according to patients needs and achieve maximum delegation compatible with HSE/hospital policy. Co-operate with the relevant staff in developing

	validation of methods and instrumentation. ----------	and leading the introduction of new ideas and technologies according to hospital/HSE policy. ----------
Staff Management and Reporting Relationships	To lead and co-ordinate staff in conjunction with the CMS to ensure that the team is allocated according to patient needs. ----------	Participate in the management of staff resources to ensure staffing levels and skill mix are appropriate. Recruit Medical Scientists and other grades with support and professional advice from HR. Motivate team members, stimulate staff initiative. Agree and review staff goals through annual reviews.
Quality and Accreditation	To ensure that the Pathology Quality Management System continues to be fully implemented in clinical chemistry. To attend and participate in the Clinical Chemistry Quality and Accreditation Meetings. ~~To take a lead role in~~ the core clinical chemical laboratory and if required to support the Chief medical Scientist and be part of the leadership of the core laboratory (Level 4 hospital example).	(Where there is no post with specific responsibility for managing quality and accreditation) To be responsible for accreditation of the laboratory with INAB and to ensure compliance with Pathology quality requirements. ----------

<u>Finance</u>	To participate when required in management of laboratory budgets ensuring effective user of resources. Preparation of annual budgets. Manage staff to ensure that staffing levels and skill mix are appropriate and within the resources allocated	Ensure appropriate deployment of financial, human and IT resources to effectively support clinical services to patients. Work with chemical colleagues, laboratory management, staff and patient representatives to develop a vision for the service through strategic planning and project management. In conjunction with Consultant (and Consultant Clinical Biochemist if in situ) and Laboratory Manager, manage department budgets within agreed limits and in compliance with hospital policy.

6. Findings

6.1. Introduction

6.1.1. The question of comparability of Medical Scientist Grades and Biochemist Grades has been under active consideration for a period of over twenty three years. The attempts to address that issue in addition to the parallel context of a complementary career for both professions path are detailed in Section 3 above. The Terms of Reference for this assessment provide for an examination of roles and responsibilities of Medical Scientists across core laboratory disciplines, including Clinical Chemistry/Biochemistry. These roles and responsibilities have been assessed in their own right, having regard to established assessments of competencies, and have also been assessed having regard to the roles and responsibilities of both Grades.

6.1.2. The Terms of Reference provide that this Assessment determine if the respective roles and responsibilities of the Medical Scientist Grades are still equivalent to the roles performed by the respective Biochemist Grades. The question therefore arises as to whether the respective development of the roles and responsibilities and the parallel development of complexity and role across each laboratory discipline are comparable. In order to objectively determine whether there is a basis for comparability across the grades, account has been taken of the following:

(a) The guiding principles of the Terms of Reference for this Assessment.
(b) The service developments as detailed in Section 3.3. above.
(c) The additional service developments identified by interviewees (Section 4 above).
(d) The job descriptions for each Medical Scientist and Biochemist Grade summarised in Section 5 above.
(e) The historic basis for pay comparability as detailed in Section 3.2 above.
(f) The written and verbal contributions made by the Management side, and other relevant parties interviewed as detailed in the process chronologically set out in Section 2 above.
(g) The written and verbal submissions made by the MLSA, in particular the submissions attached as appendices to this report.

(h) The validation received of potential comparability in roles and responsibilities from other relevant parties unconnected to the grades in question, for example:
- Two Clinical Directors of Pathology (Level 4 and Level 3 hospitals)

- Consultant Clinical Biochemist (with academic responsibilities for Biochemistry (undergraduate and post-graduate) Level 4 hospital)

- The additional expertise identified in section 2.9 above.

(i) The following analysis of competencies in 6.3 to 6.7 and the rationale for selecting such competencies as outlined in detail in sections
2.10 and 2.11 above.

6.1.3. In its response to the draft report of this Assessment the MLSA wished to place on the record its assertion …. *"that all of the roles and responsibilities outlined for staff and senior grade biochemists are also performed by medical scientists at the equivalent grade, in addition to the many other roles (management, quality, non-Biochemistry and cross-disciplinary work, out of hours cover etc) carried out exclusively or primarily by medical scientists. The MLSA's acceptance of the report's recommendations does not change this position.*

6.2. Recruitment and Retention

6.2.1. The Assessor noted the high levels of unfilled Medical Scientist posts, particularly at basic grade level. Respondents identified what they described as pay inequity with Biochemist colleagues and the absence of a career path to a career senior scientist post as factors in not continuing their careers in Medical Science in this jurisdiction. The Assessor understands that there are currently over 300 vacancies across Medical Scientist Grades. Equating to approximately 13% of all posts.

6.2.2. The Assessor notes the observations of a number of interviewees that increased automation of laboratory testing will require to be reflected in a different skill mix and a different balance between basic grade and senior posts, and that this should be taken into account in manpower planning.

6.3. Professional and Technical Competence

6.3.1. Medical Scientist Grade

- The knowledge and competency required to discharge the responsibilities of the post across all laboratory disciplines requires a level 8 BSc (Hons) qualification for entrant's post 1997.
- Undergraduate clinical placement across all core laboratory disciplines (1000 hours) can be regarded as providing a solid basis for equipping Medical Scientists with the knowledge and competency to discharge pre analytical responsibilities after appointment.
- Knowledge and competency to perform all activities related to the receipt, analysis and reporting of laboratory specimens.
- Knowledge and competency of Quality Management Systems as per relevant ISO standards.
- Knowledge and competency to participate in on call laboratory rotas in their laboratory specialty/discipline and in hospitals with general laboratory on-call rotas, to participate in such rotas.
- Knowledge and competency to ensure ongoing compliance with standards of proficiency and obligations for Continuing Professional Development as required by CORU – Medical Scientists Registration Board

6.3.2. Biochemist Grade

- The knowledge and competency to discharge responsibilities of the post in Clinical Chemistry/Biochemistry requires a BSc (Hons)/BA (Mod) in a subject related to Clinical Biochemistry/Laboratory Medicine and Diagnostics, an MSc in Clinical Biochemistry or relevant subject area and three years post qualification experience.
- Knowledge and competency to process and identify test results on biological analytes for diagnostic/therapeutic/disease monitoring purposes.
- Knowledge and competency to interpret and implement internal quality control and external quality assurance and to provide that service in accordance with the relevant ISO accredited standard.
- Knowledge and competency in interpretation of analytical methodology for results based on clinical chemistry competencies.
- Knowledge and competency acquired after 8 months to participate in Biochemistry on-call. Additional knowledge and training in blood sciences and potentially other disciplines required and registration as a Medical Scientist with CORU if participating in multi-disciplinary laboratory on-call rosters.

6.3.3. Senior Medical Scientists

- The knowledge and competency required to discharge the requirements of the post across all laboratory disciplines requires a CORU approved level 8 BSc (Hons) Qualification, an approved level 9 MSc (or equivalent qualification) and four years' experience as a Medical Scientist, or fellowship of the Institute of Biomedical Sciences pre 1999).
- The knowledge and competency to discharge day to day planning, prioritising and supervising the work of the respective Pathology department.
- The knowledge and competency to design and implement structure policies and systems for the management of service delivery in consultation with the Chief medical Scientist.
- The knowledge and competency to personally perform in and to manage other laboratory staff in all duties relating to analytical testing.
- The knowledge and competency to actively participate, including taking lead roles for their respective disciplines, in Quality Management Programmes and in accreditation processes with INAB.
- The Knowledge and competency to take a lead role in the introduction and use of information technology within the Department when delegated by the Chief Medical Scientist.

6.3.4. Senior Biochemist

- The knowledge and competency required to discharge the responsibilities of the post in Biochemistry/Clinical Chemistry requires an MSc of higher qualification in Biochemistry and three years post qualification experience.
- The knowledge and competency to develop new technologies, diagnostic and new assays in conjunction with the Principal Biochemist, if in situ, and/or with the Consultant Biochemist/Chief Medical Scientist, Laboratory Manager and Chemical Pathologist.
- The knowledge and competency to provide analytical biochemistry and endocrinology services under the direction of the Principal Biochemist, if in situ.
- Knowledge and competency of ISO 15189 and ISO 22780 quality standards and to implement these standards in practice and to supervise Biochemist grade staff in complying with such standards.
- Knowledge and competency of international guidelines and legal and professional standards in personally discharging analytical duties in Biochemistry and in supervising and training Biochemist Grade staff in meeting such compliance standards.
- Knowledge and competency to make the most effective use of

information technology for service provision and administrative support and to take responsibility for this area in conjunction with Principal Biochemist, if in situ, and /or Chief Medical Scientist.
- Knowledge and competency to participate in Biochemistry on-call rotas and in multi-disciplinary rotas where registered with CORU as a Medical Scientist.

6.3.5. Chief Medical Scientist

- The knowledge and competency required to provide clinical and scientific leadership for a laboratory speciality or across specialities depending on the range of laboratory services provided by the post.
- The knowledge and competency required from seven years clinical experience as medical scientist and possession of a level 9 MSc or equivalent level 9 qualification.
- The knowledge and competency required of regulatory good practice and other quality frameworks to take the lead in accrediting the respective laboratory disciplines/specialty with INAB and to comply with Quality Management requirements.
- To manage all staff resources including medical science grades (and in the case of clinical chemistry Biochemist Grades in the absence of a Principal Biochemist) to ensure appropriate staffing levels and skill mix to meet the demands of the service.
- The knowledge and competency to take a central role in conjunction with senior colleagues, including those at laboratory Manager and Consultant levels, to strategically plan for the respective service, and in respect of Clinical Chemistry, to also work with Principal Biochemists in undertaking such strategic planning.
- The knowledge and competency to manage departmental budgets regarding reagent purchasing and maintenance.
- The knowledge and competency to take the lead role in security and maintaining INAB accreditation for the respective laboratory.

6.3.6. Principal Biochemist

- The knowledge and competency required to discharge the responsibilities of the post in Clinical Biochemistry through possession of an FRCPath (Part I) or relevant PhD qualification in Biochemistry and five years' experience in Clinical Biochemistry, two of which must be spent in a Senior Clinical Biochemist post.

- The knowledge and competency to lead biochemistry grade staff in optimising the methods and range of clinical investigations by working with Clinical Biochemists, Chemical Pathologists,

laboratory Managers and Chief Medical Scientists.

- The knowledge and competency to take a clearly defined role in Biochemistry, to manage and direct the evaluation, verification, and validation of analytical methods and required instrumentation.

- The knowledge and competency to take a lead role in the leadership of the clinical chemistry laboratory, in conjunction with the Chief Medical Scientist, Laboratory Manager, Consultant Biochemist (if in situ), and Chemical Pathologist.

6.4. Problem Solving

6.4.1. Medical Scientist Grade

- The post requires competency to perform and interpret both routine and complex analytical duties under the supervision of a Senior Medical Scientist and overall direction of the Chief Medical Scientist.
- The post requires competency to identify and address challenges in successfully completing analytical tasks. These include:
    - Clarification of test requests (re appropriateness of tests) with testing General Practitioners and hospital clinicians.
    - Identifying "Wrong Blood in Tube incidents" and raising a non-conformance through incident management procedures.
    - Identifying Quality Control failures and troubleshooting the failure before escalating to Senior Medical Scientist and/or Engineer.

6.4.2. Clinical Biochemist Grade

- The post requires competency to perform and interpret analytical tests in Biochemical/Chemical Science laboratories under the direction of Senior and Principal Biochemists.
- The post requires competency to identify and address challenges in successfully identifying addressing and escalating problems arising across the analytical processes. These include:
    - Addressing quality control failures
    - Addressing "Red Alarms" for analysis and ensuring that the cause is identified and addressed within their competency and in accordance with quality protocols and escalating where appropriate to the Senior Biochemist, Principal Biochemist and/or laboratory management including the Chief Medical Scientist.
    - Querying unexpected/seemingly inappropriate test results through examining patient history and reviewing quality control data and consulting with the referring clinician.

6.4.3. Senior Medical Scientist

- The post requires competency to perform both routine and complex analytical duties reporting directly to the Chief Medical Scientist
- The post requires competency to identify and resolve system failures and anomalies
- The post requires competency to raise "non-conformances " on the Quality Management System (Q Pulse or similar) and to manage the remedial and corrective/preventive actions either within their own competency or through consultation with the Chief Medical Scientist and/or relevant departmental Clinical Consultant Pathologist with clinical governance responsibilities within the relevant laboratory.

  Such problem solving includes:
  - Corrective action with ID errors and mismatched tubes
  - Troubleshooting instrument failure

- The post requires competency to direct management of non-conformances and the authority to introduce new training to address pattern of errors and to validate SOP documentation following consultation with the Chief Medical Scientist.

6.4.4. Senior Biochemist

- The post requires competency to perform both routine and complex analytical duties in Biochemistry laboratories and to supervise Biochemistry staff directly under the supervision of Principal Biochemists and Consultant Biochemists.
- The post requires competency to liaise with laboratory staff and clinicians to address non-conformances and testing anomalies.
- The post requires competency to address quality compliance issues across the analytical phases and through identifying the potential expansion of range of testing solutions in conjunction with the Principal Biochemist, Consultant Biochemist (if in situ) and/or the Chief Medical Scientist.

6.4.5. Chief Medical Scientist

- Competency required at a senior decision-making level to identify, from supervised scientific staff, concerns, mishaps/complaints, defects and non-conformances through all aspects of the analytical phases of testing across the assigned laboratory discipline.
- Competency required to discuss with Clinical Consultant (and Consultant Biochemist when in situ re Clinical Chemistry) unexpected or abnormal test results and to take steps to address any such non-conformances through directing adjustments to SOP's, quality guidelines, training and re-calibration of equipment and process.
- Competency to address assay failures/non-conformances with external agencies where there is a reagent or equipment adjustment required.
- Competency to deal with unsatisfactory test turn-around times through evaluation against test best practice and deciding on solutions within budget allocation within the clinical governance framework of the respective laboratory and where budgetary implications, to discuss and agree with the Laboratory Manager.

6.4.6. Principal Biochemist

- Competency required at a senior decision making level to assess seriousness of an identified problem and to initiate investigations into non-conformances and to manage the measures to address such problems
- Competency as part of the Duty Scientist roster to receive queries from clinicians regarding clinical chemistry processes and to outline those measures/solutions.
- Competency to troubleshoot analytical issues escalated from Biochemistry staff and to be consulted by Medical Scientists including the Chief Medical Scientist on addressing those issues.
- Competency to address identified shortfalls in services through developing assays in-house in conjunction with the Consultant Biochemist (if in situ) and with Consultant Chemical Pathologists.
- Competency to deal with request for non-routine tests not provided by the laboratory, to research solutions, determine the quality management system associated with such tests and use clinical judgement to assess appropriateness of test and to advise and influence decision making at Consultant and Clinical Director of laboratory levels on the introduction of any such test.

6.5. Decision Making

6.5.1. Medical Scientist

- Competency to make recommendations through the clinical governance structure for tests to be rechecked or further reviewed at Senior Medical Scientist, Chief Medical Scientist and Consultant level.
- Competency to query scope of tests requested by clinicians with that clinician.
- Competency to decide on re-stocking/re-ordering of reagents.
- Responsible for decisions to ensure appropriate blood stocks management

6.5.2. Biochemist Grade

- Competency to order reagent tests/sample and to release the provisional result if sample repeated.
- Competency to decide on opening a line for analysis and reviewing calibrations in accordance with quality control procedures.
- Competency to prioritise processing of samples based on clinical urgency.
- Competency to make recommendations through the clinical governance structure for tests to be rechecked or further reviewed at Senior Biochemist, Chief Medical Scientist Principal Biochemist and at Consultant level.

6.5.3. Senior Medical Scientist

- Competency to interpret test results to establish whether non-conformances have occurred and to re-order tests or repeat samples.

- Competency to take immediate steps where systems failure/quality control issues are identified by Laboratory and Medical Scientist staff. To take remedial action and to consult with the Chief Medical Scientist in what measures to take.

- Competency to identify whether analyser anomalies/delays can be addressed through engineering input and whether expected down time requires decision on referral of routine and/or urgent samples to external laboratories. Competency to prepare and present business case for consideration by Chief Medical Scientist.

- Competency to decide on appropriate deployment of staff to cover core laboratory services and out of hours services if delegated to do so by the Chief Medical Scientist

6.5.4. Senior Biochemist

- Competency to identify personally and/or to manage reported non conformances and anomalies. To decide on the appropriate management of the non-conformance including consultation with the Principal Biochemist (Consultant Biochemist if in situ) and Chemical Pathology Consultants, on the appropriate management measures.
- Competency to decide on a range of measures to address quality non-conformances within their competency and where required, to refer such measures to the Principal Biochemist.
- Competency to decide on deployment of Biochemical grade staff to meet service needs and to liaise with Senior Medical Scientists to ensure appropriate skill mix for core clinical chemistry competencies and out of hours (on call services).

6.5.5. Chief Medical Scientist

- Competency to make decisions at a senior level regarding clinical management of laboratories (including multi-disciplinary laboratories in smaller hospitals) and operational management of the laboratories.
- Competency to decide on additional appropriate tests to provide a more complete analysis for clinicians to fully diagnose and manage patient treatments.
- Competency to decide on internal quality control and external quality assurance for all laboratory processes in accordance with best practice and INAB accreditation requirements.
- Competency to decide on deployment of all laboratory and medical scientific staff (and Biochemistry staff where no Consultant Biochemist is in situ) and in certain instances including Principal Biochemists.
- Competency to introduce new services to respond to crisis situations, for example reagent sourcing and microbiology "work arounds" to address hospital and community requirements for valid and reliable PCR testing for Covid-19

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6.5.6. Principal Biochemist

- Competency to escalate critical or unexpected results to clinical referrer if the nature of results are outside the clinical expertise of the Principal Biochemist.
- Competency to decide on actions arising from a full range of queries re clinical chemistry services arising from participation on the Duty Scientist/Biochemist Roster.
- Competency to decide on the release of tests results depending on whether optimal performance of analytical processes.
- Competency to decide on the staffing and development of the Duty Scientist roster and the deployment of Biochemistry grade and Senior Biochemistry staff within clinical chemistry.

6.6. Responsibility and Accountability

6.6.1. Medical Scientist Grade

- Competency to supervise non-scientific laboratory staff
- Competency to co-ordinate the financial management included in re-ordering reagents.
- Competency to maintain appropriate routine and specific blood supplies to ensure appropriately maintained blood stock levels
- Competency to manage reagent stock control to ensure continuity of supply and value for money.

6.6.2. Biochemist Grade

- Competency to monitor reagent stock depletion and to inform Senior Medical Scientist overseeing ordering
- Competency to monitor turn-around time and to escalate to senior medical Scientific and Senior Biochemistry staff any factors identified in contributing to reduced turn-around of samples
- Competency to manage lines to ensure maintenance is scheduled when another line can continue in operation.
- Competency to calibrate prior to resumption of line following maintenance

6.6.3. Senior Medical Scientists

- Competency to supervise medical scientific and other laboratory staff and to check outputs against quality control metrics.
- Competency to ensure supervised staff understand their scope of practice and accountability across the analytical phases.
- Competency to Manage resources having regard to service continuity and value for money through stock control of reagents and through booking routine equipment maintenance.
- Competency to supervise staff and to carry out benchwork while meeting quality control, best practice and INAB requirements.

6.6.4. Senior Biochemist

- Competency to supervise Biochemist grade staff and to contribute to the supervision of laboratory and staff.
- Competency to monitor compliance with quality standards and INAB requirements and to take remedial action directly or through direction to staff.
- Competency to ensure reporting staff are accountable within their scope of practice
- Competency to manage resources in conjunction with Senior Medical Scientists re reagent purchasing and stock control and being accountable for ensuring value for money in equipment maintenance.

6.6.5. Chief Medical Scientist

- Competency to be accountable through the Laboratory Management governance structure for their respective laboratory specialty and in the case of smaller hospitals for multi-disciplinary laboratory services.
- Competency to lead a team of Medical Scientists and other laboratory staff and in certain circumstances where there is no Consultant Biochemist in situ, to have operational responsibility for Principal Biochemist staff.
- Competency to manage all laboratory resources through delegating responsibility to Medical Scientist staff for reagent and blood product supply, stock control management and quality standards and INAB compliance.
- Competency to delegate or take responsibility directly for the management of Point of Care testing in clinical settings to ensure accountability for resource use and for quality and INAB compliance.

- Competency to delegate or take direct responsibility for ensuring adequate out of hour's service for a specific laboratory service or for multidisciplinary services in smaller hospitals. To ensure quality standards compliance and that rostering is within budget

6.6.6. Principal Biochemist

- Competency to supervise and mentor laboratory staff including liaison with Medical Scientist grades in co-ordinating Biochemist and medical Scientist duties so that departmental objectives are met.
- Competency to participate and manage the Duty Biochemist rota to provide a liaison point for clinicians requiring advice on test requests and advice on interpretation of test results.
- Competency to structure education and training of Biochemist staff in accordance with ACBI training including where working toward FRCPath qualifications.
- Competency to develop specialist assays to allow for repatriation of tests where financially feasible to do so.

6.7. Communications

6.7.1. Medical Scientific Grade

- Competency required to communicate effectively within the laboratory as part of a team led by the Senior Medical Scientist or Chief Medical Scientist.
- Competency to communicate with referring clinicians regarding the appropriateness of range of tests requested.
- Competency to communicate with referring clinicians to deal with queries re test results and to deal with those queries within their scope of practice or to refer on to Senior and Chief Medical Scientists where appropriate.
- Competency to communicate with clinical and nursing colleagues as part of Haemovigilance and Point of Care responsibilities.

6.7.2. Biochemist Grade

- Competency to engage in day to day communications with laboratory aides on the status of lines and to supervise the re-direction of samples to alternate lines where necessary.

- Competency to communicate with Senior Biochemists and Principal Biochemists on unusual test results and communicate recommendations on managing result including potential target reassignment.
- Competency to communicate with Medical Scientists on laboratory logistics issues including meeting staffing shortfalls to address increases in turn-around time.
- Competency to communicate with clinical colleagues including Consultant Biochemist (if in situ) and Chemical Pathologists for advice on measure to take following unusual test result or non-conformance.

6.7.3. Senior Medical Scientist

- Competency to communicate with Medical Scientists and Laboratory Aides reporting to them in clear understandable terms, both verbal and written, to assist in the provision of direction and advice on complex issues.
- Competency to adopt team working principles and build trust among Laboratory Aide and Medical Scientist staff to deal with challenging workloads.
- Competency to communicate workforce needs including specimen/test reception workflow needs within the laboratory discipline to avoid/address increases in turn- around times.
- Competency to communicate requirements to address unusual test outcomes or non-conformances either personally or by way of delegated responsibility to Medical Scientist Grades and to escalate any such concerns to the Chief Medical Scientist and/or the departmental Clinical Consultant Pathologist where appropriate.
- Competency to manage or monitor the efficacy of the ICT systems to support the safe communication of reports to clinicians in hospital and community care settings.
- Competency to communicate effectively with suppliers to ensure stock control and timely maintenance of equipment from a quality control, INAB compliance and value for money perspective.

6.7.4. Senior Biochemists

- Competency to communicate complex issues to Biochemistry Grade, Laboratory Aide and staff in training across all analytical phases of biochemistry.
- Competency to communicate with laboratory staff on the most effective use of ICT in providing a safe and timely biochemistry service in compliance with quality standards and INAB requirements.

- Competency to communicate with Biochemistry and Laboratory Aide staff on measures to address unusual test results and non-conformances and to liaise with Senior Medical Scientists and Principal Biochemists/Chief Medical Scientists where measures are complex.
- Competency to communicate test outcomes to clinical staff and competency to communicate with clinical staff where advice sought and/or delegated by the Duty Principal Biochemist to provide such advice.

6.7.5. Chief Medical Scientist

- Competency to manage laboratory specialty and multi-disciplinary teams to ensure timely reporting, authorisation and interpretation of diagnostic tests.
- Competency to manage human resources to ensure appropriate scientific skill mix, ICT competency, Laboratory Aide and clerical administrative support to meet the service needs of the laboratory discipline, or in smaller hospital, the multi-disciplinary laboratory services.
- Competency to communicate complex issues at a senior level within the laboratory governance framework including Consultant Clinical Director levels.
- To possess ICT competency at a senior level and to be satisfied that ICT systems support the quality control processes and are consistent with INAB requirements.
- Competency to take the lead Quality Management role (in the absence of a Laboratory wide quality and accreditation senior lead role) and communicating with all levels of laboratory staff in their role, coordinating and preparing for accreditation with INAB.

6.7.6. Principal Biochemist

- The Competency to communicate complex clinical chemistry results and interpretations and to clinically supervise Senior Biochemist posts in discharging these responsibilities.
- The Competency to communicate complex urgent clinical detail including responding to urgent clinical queries as part of the Duty Biochemists roster.
- The competency to communicate training programmes and supervise senior training for those Senior Biochemists preparing for FRCPath part.
- The competency to lead/ co-ordinate a research and development team within Biochemistry including Biochemistry and Medical Scientific and Academic staff, including supervision on the

appropriate documentation of research projects, scientific papers and abstracts.

- The competency to represent Biochemistry through the Laboratory clinical governance infrastructure.

6.8. Distinguishing factors between Medical Scientist and Biochemist Grade posts

6.8.1. On the basis of the detailed evidence from site visits, interviews with post holders, job descriptions and the competencies detailed in 6.2 to 6.6 above, the Assessor has concluded that there are no material differences in qualifications duties and responsibilities between Medical Scientist grades across Laboratory specialties and Biochemist Grade grades. In addition, no material differences in duties and responsibilities between the Medical Scientist and Biochemistry Grades were evident when comparing the two level 4 hospitals and the level 3 hospital, included in this assessment process, where both grades staffed Biochemistry Departments.

6.8.2. The Assessor notes that the majority of Medical Scientists hold qualifications which make them eligible to compete for Biochemist Grade and promotional posts to Senior Biochemist. The assessor interviewed one such post holder who had trained as Medical Scientist and had then competed and was successful in securing a Senior Biochemist post. Laboratory Managers interviewed in the course of this assessment also provided detail of specific instances of Medical Scientists opting to change career paths to Biochemistry, reportedly on the grounds of improved access to protected training time as well as the additional remuneration applicable to the latter grade.

6.9. Distinguishing factors between Senior Medical Scientist and Senior Biochemist Grade posts

6.9.1. On the basis of the detailed evidence from the site visits, interviews with post holders, job descriptions as summarised in Section 5 above and the competencies detailed in 6.2 to 6.6. above, the Assessor has concluded that there are no material differences in qualifications, duties and responsibilities between Senior Medical Scientist grades across laboratory specialties and Senior Biochemist grades. In addition, no material differences in duties and responsibilities between the Senior Medical Scientist and Senior Biochemistry Grades were evident when comparing the two level 4 hospitals and the level 3 hospital, included in this assessment process, where both grades staffed Biochemistry Departments.

6.10. Distinguishing factors between Chief Medical Scientist and Principal Biochemist posts

6.10.1. With regard to Chief Medical Scientist posts it is clear that these are posts with complex operational and clinical responsibilities for particular laboratory specialties. There are also posts in smaller hospitals which discharge those responsibilities for multi – disciplinary laboratories without the benefit of localised comprehensive clinical governance support. In Biochemistry/Chemical Pathology Laboratories where there are no Biochemist grades in situ, including two of the state's largest hospitals, Chief Medical Scientists carry full clinical and operational responsibility supported by the Laboratory Manager and Chemical Pathology Consultant staff. In hospital sites where there are Biochemist grades in situ, there are hospital specific arrangements where Medical Scientists report on clinical issues to the Chief Medical Scientist and Biochemist Grades continue to clinically report through the Biochemist grade structure. However, there are "on the ground" examples of practical *de facto* arrangements of operational reporting to Chief Medical Scientists by all staff around operational matters such as rostering, accreditation, ICT, Health and Safety, procurement of consumables and equipment. In cases where Consultant Biochemists (approximately 5 posts in place nationally) are in situ, there is a more complete reporting structure within Biochemistry but even then, there are examples of Chief Medical Scientists assuming clinical and operational responsibilities for biochemistry specialties with clinical reporting relationships to both Consultant Biochemist and Chemical Pathologist Consultant posts. The MLSA has provided examples of such services across acute hospitals in its written submission attached to this report.

6.10.2. While it is recognised that there are some variations in the comparisons that can legitimately be made between Chief Medical Scientists and Principal Biochemists, the Assessor is satisfied that Chief Medical Scientists function at a comparable level of seniority to Principal Biochemists. However, there are distinctions to be drawn between the formal qualifications required for both posts and the fact that the promotional post for Principal Biochemists is at Consultant Biochemist level while the only available promotional post for Chief Medical Scientist is at Laboratory Manager level.

6.10.3. It is also acknowledged that while the role and responsibility of Chief Medical Scientist grade has developed in parallel with the increasing complexity of laboratory services, that since the publication of the Expert Group Report that the appointment of Specialists and the introduction of Laboratory Manager Grades requires to be taken into account.

6.11. Comparative Exercise with other posts identified in the Terms of Reference

6.11.1. The following posts have been graded for the purposes of arriving at broad indicative scoring of these posts. Job Descriptions relating to these posts have been examined in arriving at the findings below. These findings have also been arrived at having regard to the methodology outlined in section 2 of this Review and the findings set out elsewhere in this section. As with other analytical approaches to job assessments and evaluations, posts are scored having regard to a range of weighted factors and comparative posts are measured on the same basis. While regard has been had to a variety of assessment and evaluation methodologies, it is recognised that there is no agreed evaluation scheme in the Health Services outside of that applicable to Clerical and Administrative staff, accordingly the methodology utilised in this assessment is a bespoke one for this assessment only.

6.11.2. The factors detailed in Section 2.8 above have been summarised under five headings and those headings are outlined in the table below. Posts have been scored on the basis of the written data and one to one interviews. Scoring levels are from 1 to 8 and a proportionate weighting has been allocated. The first three factors have each been assigned an equal weighting. An additional weighting for the factors relating to Professional and Technical Competence over the Communications competency has also been assigned. The factors are as follows…

- Decision Making
- Responsibility and Accountability
- Problem Solving
- Professional & Technical
- Communications

6.11.3. Comparative weighting between basic grade Medical Scientist and Biochemist.

	Medical Scientist	**Biochemist**
Professional and Technical	V	V
Problem solving	IV	IV
Decision making	IV	IV
Responsibility & Accountability	IV	IV
Communications	IV	IV

6.11.4. Comparative weighting between Senior Medical Scientist and Senior Biochemist Grades.

	Senior Medical Scientist	**Senior Biochemist**
Professional and Technical	VI	VI
Problem solving	IV	IV
Decision making	IV	IV
Responsibility & Accountability	V	V
Communications	V	V

6.11.1. Comparative weighting between Chief Medical Scientist and Principal Biochemist Grades

	Chief Medical Scientist	**Principal Biochemist**
Professional and Technical	VI	VII
Problem solving	V	V
Decision making	V	V
Responsibility & Accountability	VI	VI
Communications	VII	V1

6.11.1. Salary Scales as at 01/07/2022

Existing point by point comparison, Basic Medical Scientist and Biochemist and grades

Basic Grade Medical Scientist	**Basic Grade Biochemist**
*1 34,774	1 37,307
2 36,198	2 38,844
3 38,463	3 41,279
4 39,535	4 42,437
5 40,556	5 43,537
6 42,969	6 46,140
7 44,530	7 47,825
8 46,106	8 49,525
9 47,708	9 51,260
10 49,308	10 53,003
11 50,913	11 54,751
12 52,546	12 56,513
13 54,190	13 58,288
14 55,853	14 60,082
15 57,459	15 61,825
16 58,580	16 63,024
*This point abolished	

6.11.2. Existing point by point Comparison, Senior Medical Scientist and Senior Biochemist and grades

Senior Grade Medical Scientist	Senior Grade Biochemist
1 52,897 2 55,284 3 57,402 4 59,567 5 61,800 6 *63,993 7 *66,251 8 *68,487 9 *70,739 *With designated NFQ Level 9 qualification	1 57,605 2 60,212 3 62,526 4 64,893 5 67,331 6 69,729 7 71,099 8 73,569 9 76,057

6.11.3. Existing point by point Comparison, Chief Medical Scientist and Principal Biochemist and grades

Chief Medical Scientist	Principal Biochemist
1 64,457 2 67,334 3 69,865 4 71,311 5 73,915 6 76,486 7 79,123 8 81,678 9 84,251	1 69,775 2 73,107 3 77,230 4 81,346 5 85,476 6 89,593 7 94,158 8 97,199 9 100,261

7. Conclusions and Recommendations

7.1. Introduction

7.1.1. Having regard to the factors and competencies established for the post in this Review process, the following conclusions and recommendations have been arrived at. The employer side in its response to the draft report of this assessment wished to place on the record that any discussions on implementation of the recommendations outlined below *"shall fall within the context of the current Public Service Agreement- Building Momentum"*

7.2. Salary Scales Basic Grade Medical Scientist and Basic Grade Biochemist

7.2.1. As the finding of this Assessment process is that there is no evidence of material distinction between the roles and responsibilities of both grades, it is recommended that a salary scale is adjusted with equivalent point by point scales for both Basic Grade Medical Scientists and Basic Grade Biochemists based on the existing Biochemist scale. The Employer side, in its response to the draft recommendation under this heading, stated a preference to maintain separate grade codes for all respective Grades without prejudice to the value of the relevant salary.

7.3. Salary Scales Senior Medical Scientist and Senior Biochemist

7.3.1. As the finding of this Assessment process is that there is no evidence of material distinction between the roles and responsibilities of both grades, it is recommended that a salary scale is adjusted with equivalent point by point scales for both grades based on the existing Senior Biochemist scale. It is further recommended that movement beyond the sixth point of the equivalent Senior Medical Scientist/Senior Biochemist scales would be confined to holders of a designated NFQ Level 9 qualification.

7.3.2. The MLSA have argued that the retention of the bar point would perpetuate the disparity between the two grades because there is no such bar point on the Biochemist scale and no prospect of one being introduced. The MLSA has also argued that while a post-graduate qualification has been mandatory for appointment as Senior Medical Scientist since 2001/2009 depending on service, a post graduate qualification has been mandatory for Senior Biochemist appointments

since 2018. Ultimately it is a matter for the parties to agree on any other considerations which would allow for qualified Senior Medical Scientists with lengthy years of service to proceed by way of red – circled agreements beyond that bar point.

7.4. Salary Scales Chief Medical Scientist and Principal Biochemist

7.4.1. The findings of this Assessment are that there are valid comparisons to be made between both grades across the factors summarised in 6.11.4 above. However, there are also distinctions which can validly be drawn as summarised in Section 6 above. The comparative weightings for the relevant generic competencies as set out in 6.11.5 above also provide for an additional weighting for the factors relating to Professional and Technical Competence over the Communications competency. Accordingly it is recommended that an equivalent salary scale would apply up to and including the sixth point of the Principal Biochemist scale. Where Chief Medical Scientists obtain an FRCPath part 1, or a relevant scientific or clinical PHD and where there is clear operational responsibility and accountability on the part of that Chief Medical Scientist for all laboratory staff within a recognised Pathology Specialty, it is recommended that, in those instances, Chief Medical Scientists may proceed through points 7 to 9 of the equivalent points on the Principal Biochemist scale, where those requirements are met. (It should again be emphasised that the Employer side, in its response to the draft recommendation under this heading, stated a preference to maintain separate grade codes for all respective Grades without prejudice to the value of the relevant salary.)

7.4.2. In its response to the draft report of this Assessment The MLSA outline a number of concerns with regard to this recommendation of a bar-point progression on an equivalent scale to Principal Biochemists based only on the criteria set out in the recommendation in para 6.16.1 above. The MLSA, in its response, acknowledged while it might be reasonable that additional relevant qualifications would be required to proceed to the top of the scale for Chief Medical Scientists that the varied managerial responsibilities and associated relevant managerial qualifications such as an MBA or Healthcare Management qualification would be as appropriate and relevant as a scientific or clinical PhD or FRC Path Part 1, to reflect the varied responsibilities of the role. The MLSA further argued that this qualification would allow more flexibility, allowing Chief Medical Scientists to branch off to either business / management or to any new clinical / scientific pathways that may be developed and that

such a branched pathway was recommended in the 2001 Expert Group Report. The MLSA expressed further concerns "..*that the future recruitment of medical scientists into the essential role of Chief Medical Scientist, with all the leadership and managerial responsibilities it entails, will be compromised if the more clinical pathway at this level remains considerably better rewarded."*

7.4.3. Having regard to the additional arguments made regarding alternative recognised managerial qualifications allowing for progression beyond point six of an equivalent scale to the Principal Biochemist scale, it is accepted that there is some merit in those arguments and that such arguments should be taken into account in finalising the fine detail around relevant qualifying criteria for Chief Medical Scientists progressing through point six of a unified/equivalent scale to Principal Biochemists.

7.5. Salary scales for Specialist Medical Scientists and Laboratory Manager Posts

7.5.1. The Terms of Reference for this Assessment include consideration of any potential impact to the pay scales for the grades of Specialist Medical Scientist and Laboratory Manager, cognisant of the need to maintain pay differentials between these grades and the grades being assessed. It will be a matter for the staff and management side to agree on the precise application of the mean % increases arising from the application of the recommendations in 7.2.2 to 7.2.4 above.

7.6. Reporting Structures

7.6.1. It is recommended that a clear reporting structure is documented and implemented in each laboratory and the principles of the HSE's Performance and Accountability Framework would be applied in managing those structures. It is also recommended that clear "end to end" governance arrangements, through Laboratory Managers and through the acute hospital management structures for all non-medical laboratory disciplines, are regularised nationally.

8. Observations and Acknowledgements

8.1. Surveillance Scientists in Acute Hospitals

8.1.1. In the course of this Assessment, CORU registered Medical Scientists who undertake infectious disease and epidemiological surveillance in acute hospitals highlighted what they described as the anomalous position of approximately 30 such scientists across the acute hospital sector. They pointed out that what they believe are comparable posts in Public Health have been, or are in the course of being, regularised. While it is acknowledged that this matter is outside the Terms of Reference for this process, a fact that has also been pointed out by the employer side, the Assessor would encourage the relevant parties to consider how best to regularise what is acknowledged is an important infection control role within the acute sector either through a separate assessment exercise or by way of direct negotiation.

8.2. Acknowledgements

8.2.1. The Assessor wishes to acknowledge the assistance of the parties in completing this process over a tight time scale. The co-operation of Medical Scientists, Biochemists, Clinicians, Laboratory and Hospital Management, and the expert assistance referenced in paragraph 2.9 above, is also acknowledged and appreciated.

Signed _____ Date 24 January 2023
Conal Devine

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9. Appendices

I. MLSA submission to the Assessment process, September 2022

II. Addendum to MLSA submission to the Assessment process, October 2022