

 <p>Form CMS A</p>	<p>POLICY REGARDING THE TRAINING OF INTERN MEDICAL SCIENTISTS</p> <p>MEDICAL AND DENTAL PROFESSIONS BOARD: MEDICAL SCIENCE</p>
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1. INTRODUCTION

The purpose of internship training is to provide an environment for candidates to complete their training under supervision and guidance in HPCSA-accredited training facilities. It is a transitional phase from postgraduate students to professionals with a responsibility to patients, the health team and the community. Internship training should provide opportunities to further develop knowledge, skills, appropriate behaviour patterns and professional thinking, as well as to gain insight, understanding and experience in the diagnostic and/or clinical health care platform. The primary goal of an internship is to build skill and competency in a diagnostic and/or clinical environment, consultation with other health care professionals and to equip oneself to function as a competent and safe health care professional. Medical scientists provide an auxiliary and supporting service to medicine, which leads to or impacts treatment, diagnosis, patient genetic counselling and consultation with other health care practitioners. They are part of a multidisciplinary health care team and may be based in public or private diagnostic laboratories, health care facilities and hospitals.

2. SCOPE OF THE PROFESSION OF A MEDICAL SCIENTIST

The following acts are hereby specified as acts which, for purposes of section 33 of the Act, shall be deemed to be acts pertaining to the profession of medical science, which acts shall be performed as an auxiliary and supporting service to medicine and in line with the scope of practice for medical scientists as prescribed under the medical and dental professions board Annexure 6 to the Ethical Rules published as Government Notice no.R.717 of 4 Augusts 2007:

The development, the evaluation; and the practice of scientific procedures which involve humans, human biological material, or medical equipment subjects thereto that such acts will lead to or impact on treatment, diagnosis and genetic counselling of humans and, where appropriate, interpretation, quality management, patient genetic counselling and consultation with other registered and appropriately qualified health practitioners.

3. SCOPE OF PRACTICE

The Scope of Practice of medical science is in the process of development.

4. ETHICAL GUIDELINES

Guidelines for Good Practice in the healthcare Professions – Ethical and Professional rules of the Health Professions Council of South Africa is available from the HPCSA website and form an integral part of internship and the career of a health professional. All rules have application but the following two are stressed.

4.1 Ethical Rule 21 on Performance of Professional Acts

A practitioner shall perform, except in an emergency, only a professional act – for which he or she is adequately educated, trained and sufficiently experienced, and under proper conditions and in appropriate surroundings. <https://www.hpcs.co.za/Conduct/Ethics>

4.2 Ethical Rule 27 on Multiple Registrations

Allows for multiple registration of fully qualified health professionals whom have completed training and wished to be registered in two or more professional categories. It does not apply to professionals in training. <https://www.hpcs.co.za/Conduct/Ethics>

5. REGISTRATION OF MEDICAL SCIENTISTS

A medical scientist may register in one of the following three disciplines; (a) Medical Biological Science, (b) Genetic Counselling or (c) Medical Physics.

The following professional categories are prescribed within the discipline Medical Biological Science:

- 5.1 Anatomical Pathology
- 5.2 Cell Biology^a
- 5.3 Clinical Anatomy^a
- 5.4 Clinical Biochemistry
- 5.5 Haematology
- 5.6 Genetics
- 5.7 Immunology
- 5.8 Molecular Biology
- 5.9 Microbiology
- 5.10 Pharmacology
- 5.11 Radiation Biology^b
- 5.12 Reproductive Biology
- 5.13 Virology

Note: ^aNo active program with no register

^bRegister with no program

6. CRITERIA FOR ACCEPTING INTERNS FOR TRAINING

Section 2 of Regulations relating to the qualifications for registration of Medical Scientists – Government Notice No. R.581 published in the Government Gazette No. 32244 of 22 May 2009 Prescribes the entrance level qualification as:

The intern must be in possession of a B.Sc. Hons degree, or an equivalent degree, which includes a research component and principles of scientific methodology, from an accredited education institution.

The minimum academic requirements are:

- a. Four years' formal education (B.Sc. Honours or equivalent) in the case of Medical Biological Scientists and Medical Physics, (see compliance certificate).
- b. For Genetic Counselling, four years' formal education (B.Sc. Honours or equivalent) and successful completion of first year study of the M.Sc. in Genetic Counselling from an accredited educational institution.
- c. In circumstances where academic studies are not, as outlined in (a) or (b) above but are believed to be equivalent to the above formal requirements, an applicant must submit details to the Committee for Medical Science for consideration (refer to 4.1 Compliance Certificate).
- d. Certified documentation should be submitted with the application.
- e. Applicants with foreign qualifications should follow the Guideline for the registration of qualifications not prescribed for registration as Medical Scientists: CMS 04 and Regulations relating to the registration of persons who hold qualifications not prescribed for registration: Published under Government Notice R101 in Government Gazette 31859 of 6 February 2009.

6.1 Compliance Certificate

Compliance list for the qualification(s) of the applicant in terms of appropriateness for the specified discipline (the applicants study record/ other certified document to confirm NQF 8 must be attached)	Yes/No
Is the entry qualification for the internship at NQF 8?	
Is the minimum number of credits for these qualification 120 credits?	
Does the qualification of the applicant include sufficient foundational knowledge for the required Internship in the relevant professional category?	
Provide a short motivation with reference to the specific modules from the applicant's academic record that Support the applicant's foundational knowledge in the specified discipline.	

6.2 Requirements

- a. The minimum entry requirement into an internship-training program is NQF 8 as prescribed by SAQA with a minimum of 120 credits.
- b. Presently, qualification descriptors, selection criteria and module content are assessed by the training facility, based on specific needs of academic knowledge and practical skills.
- c. The content, methodology and post-graduate research module is required in all medical biological scientists' categories.

7. THE INTERNSHIP TRAINING PROGRAM

7.1 The National Curriculum

Section 61 (1)(a)(iv) of the Health Professions Act, 1974 (Act No. 56 of 1974) empowers the Medical and Dental Professions Board to exercise control over the minimum requirements of the curricula and the standards of education, training and examinations to qualify for

registration in terms of this Act, must be maintained at every educational institution or training facility offering education and training in any such profession, in order to secure recognition under this Act of the qualifications in question at such educational institution or training facility.

Government Notices No R.578, No R.579, No R.580 and No. R.581 as published in the *Government Gazette* No. 32244 of 22 May 2009 and as amended relates to the registration of intern medical scientists, the registration of medical scientists, the prescribed qualifications and conditions and duration of internship

The National Curriculum serves as the core curriculum of the discipline and describes the minimum prescribed requirements for a medical scientist internship-training program.

7.2 Guideline on the Submission and Assessment of Portfolio of Evidence

The National Curriculum is supplemented by a structured and prescriptive assessment tool to assist the candidate intern and the assessment panel. As such, a checklist (Guidelines on the Submission and Assessment of Portfolio of Evidence: CMS 02) was developed by using all the components of the National Curriculum and includes a Duty certificate (as prescribed in section 6 of the Government Notice No. R.578 in Government Gazette No. 32244 of 22 May 2009).

The checklist provides for a 'user-friendly' tick list and the page allocation of the specific evidence. By using, the structured checklist (i) the candidate can evaluate progress, (ii) the examination assessment panel can use this as an easy navigation tool to confirm appropriateness of evidence and (iii) the accreditation panel can easily determine the components of a training program.

A duly completed Guideline on the Submission and Assessment of Portfolio of Evidence: CMS 02 (Checklist) MUST be submitted with the submission of the Portfolio of Evidence. In the case of the Checklist not being completed as prescribed or not submitted, the Portfolio of Evidence will be returned to the candidate and assessment will not be performed.

7.3 Guidelines for the Assessment and Moderation of Portfolio of Evidence

The Guidelines for the assessment and moderation of Portfolio of Evidence: CMS 03 serve as guideline for assessors and moderators of Portfolio of Evidence to conclude assessment.

8. DURATION OF TRAINING AND SUPERVISION

The Government Gazette Notice No R.578 (22 May 2009) under the Health Professions Act, 1974 (Act no, 56 of 1974) – Regulations relating to the registration of interns in medical science defines the term “accredited training facility” as a hospital, clinic, laboratory, health care centre, or any other institution which is accredited by the board for the purpose of internship training”.

8.1 Prerequisite for Registration as Medical Scientist is defined as:

“A graduate shall before he or she can be entitled to registration as a medical scientist in any category of such registration register as an intern and undertake internship training to the satisfaction of the board for a period and in the manner prescribed in regulation 5 unless the board exempts him or her partially or in full this requirement on submission of documentary proof to the satisfaction of the board of internship or equivalent training undergone or experience obtained elsewhere”

8.2 The conditions of internship training are defined as:

8.2.1 Period

Section 5(a) of the *Government Notice No. R.578 published in Government Gazette No. 32244 of 22 May 2009 prescribes:*

internship training must be for a period of twenty-four (24) months and where it is broken or interrupted it must consist of periods which, when added together, are not less than twenty-four (24) months in total, including vacation leave not exceeding one month per annum and sick leave not exceeding two months per annum.

- a. The training undertaken by an intern medical scientist must meet the following conditions:
- b. Internship training must be for a period of twenty-four (24) months and where it is broken or interrupted it must consist of period which, when added together, are not less than twenty-four (24) months in total, including vacation leave not exceeding one month per annum and sick leave not exceeding two months per annum;
- c. No such break of interruption must exceed a period of one year, if the period of training prior to such break or interruption is to be recognized as part of completed internship;
- d. The period of twenty-four (24) months of internship training contemplated in paragraph (a) must be completed within a period of four (4) years from the initial date of registration as an intern medical scientist;
 - (i) If an intern does not complete his or her internship training within a period of four (4) years, his or her registration in terms of the Act shall be cancelled, unless-
 - (ii) he or she provides the board with satisfactory reasons as to why his or her registration should not be cancelled; and
 - (iii) he or she complies with the conditions that the board may determine for completing his or her internship training in order for the board to recognize such training.

8.2.2 Criteria for determination of equivalent training or experience undergone elsewhere as *a graduate without internship*

Section 2 of the Government Notice No. R.578 published in Government Gazette No. 32244 of 22 May 2009 prescribes:

“a graduate shall, before he or she be entitled to registration as a medical scientist in any category of such registration, register as an intern and undertake internship training to the satisfaction of the board for a period and in the manner prescribed in regulation 5, unless the board exempts him or her partially or in full from this requirement on submission of documentary proof to the satisfaction of the board of internship or equivalent training or experience undergone elsewhere”.

This clause on “equivalent training or experience undergone elsewhere” may exempt candidates from performing prescribed components of the internship training program subject to submission and assessment of documentary proof. Documents to be submitted should include:

- a. Motivation letter from the candidate and supervisor
- b. The portfolio of evidence (as described by the National Curriculum)
- c. Completed checklist (Guideline on the Submission and Assessment of Portfolio of Evidence).

This will be assessed by the Committee for Medical Science on a case-by-case basis.

The request should be submitted with the application for internship training.

The applicant may then be exempted from certain component/s of training but will still have to complete the full twenty-four months of internship training.

8.2.3 Criteria for determination of equivalent training or experience undergone elsewhere as a registered medical scientist and successful completion of internship may include:

Internship training performed elsewhere (not within the Republic of South Africa)

- a. In the case where the candidate is/was registered by a regulating body in another country, the proof of registration has to be provided.
- b. The training programs will be compared and if determined to be sufficient the candidate will be allowed to follow prescribed processes to register with the HPCSA.
- c. If the training program lacks prescribed components, the candidate has to complete the components at an accredited training facility under supervision of a Board approved supervisor with pre-determined progress reports.
- d. Duration of internship/supervised practice will depend on the various components lacking.

8.2.4 Criteria for determination of reduced internship when a registered medical scientist applies for registration in a different professional category under medical biological science

- a. Motivation letter from the candidate and supervisor
- b. The portfolio of evidence (as described by the National Curriculum)
- c. Completed checklist (Guideline on the Submission and Assessment of Portfolio of Evidence).

This will be assessed by the Committee for Medical Science on a case-by-case basis. The request should be submitted with the application for internship training. The applicant may then be exempted from certain component/s of training and may complete internship training in a period determined by the Board.

8.3 Registration as an intern medical scientist

- a. Intern medical scientists should register as interns with the HPCSA *within 2 months of commencing training*. The intern medical scientist, the supervisor and the accredited training facilities are jointly responsible for ensuring that the registration of an intern medical scientist with the Board.
- b. On registration, the intern candidate shall receive a registration certificate and a registration number.
- c. An intern will be appointed against an HPCSA approved intern post number.
- d. M.Sc. (Med) Genetic Counselling students should register as Genetic Counselling students with the HPCSA within 2 months of enrolling for their degree (Regulations relating to the registration of students in medical science).
- e. Individuals, who wish to apply to register with the HPCSA, and practice as a Genetic Counsellor, must be in possession of an M.Sc. (Med) degree in Genetic Counselling and have completed 2 years of internship in an accredited intern training facility as defined in regulation R.578
- f. The Genetic Counsellor intern must be registered for and have at least completed their first year of an M.Sc. (Med) Genetic Counselling degree or have already qualified with this degree.
- g. Intern training at an HPCSA accredited training facility may overlap with the second year of study of the M.Sc. (Med) Genetic Counselling degree. The second year of internship will then be completed post-degree. Should an individual not register as an intern in their

second year of study, they will be required to complete two years of internship post-degree.

- h. Should the intern training facility be changed, the HPCSA should be notified in writing, *in advance*. Intern registration is in accordance with Regulations relating to the registration of Interns in Medical Science - Government Notice No. R.578 in Government Gazette No. 32244 of 22 May 2009, please consult these regulations for further information.

8.2.4 Supervision

- a. Supervision of interns requires that the supervising medical scientist or medical specialist is in good standing with the HPCSA and is accessible and available for personal contact on a day-to-day basis.
- b. Supervision of training of **Intern Medical Biological Scientists** must be undertaken by either, a registered Medical Specialist or Medical Biological Scientist, in the relevant professional category, who has been registered with the HPCSA for a minimum of three (3) years.
- c. Supervision of training of an **Intern Medical Physicist** must be undertaken by a registered Medical Physicist, who has been registered with the HPCSA for a minimum of three (3) years.
- d. Supervision of training of an **Intern Genetic Counsellor** must be undertaken by a registered Genetic Counsellor, who has been registered with the HPCSA for a minimum of three (3) years and may include other supervisors including Medical Geneticists.
- e. The ratio of intern candidates to each supervising medical scientist will be determined during the accreditation visit and will depend on the size of the training facility, the staff establishment and number of appropriate supervisors. The ratio could be from 1:1 (intern to supervisor) to a maximum ratio of 4:1 (interns per supervisor).

Criteria for supervisor: Medical specialist (pathologist)

- A medical specialist (pathologist) may supervise an intern medical scientist on the following conditions::
- Should be In good standing with the HPCSA
- Should be registered with the HPCSA in the same category/discipline as the intern candidate;
- o Can only be considered as a supervisor of an intern medical scientist in the category molecular biology if the curriculum of the post graduate qualification obtain, contains sufficient academic teaching and practical training in molecular biology within the specific academic discipline.
- Register with the HPCSA for more than three years in the specific category/discipline.

8.2.5. Supervision and Responsibilities

- a. *Primary stakeholder*
 - Defined as the employer of the intern candidate.
 - Provide environment and resources for internship training.
 - Determine the conditions of employment and/or service.
- b. *Head of Training Facility*
 - Primarily responsible to complete the Intern Duty Certificate at the end of training.
e.g. Head the School of Pathology (NHLS) / Executive Director: (NIOH and NICD) / Chief Executive Officer (Private pathology and Medical Physics) / Medical Deans (Academic Pathology Laboratories, Genetic Counselling and Reproductive Biology)

- c. *Head of Training Program (Head of Department)*
 - Ensure that ongoing evaluations per rotation are recorded.
 - Sign off on final exit assessment of the intern candidate.
 - Ensure evaluation as per Assessment Guideline is completed and signed by supervisor, intern candidate and himself / herself.
 - Meet regularly with supervisors including at the end of each rotation / domain.
 - Investigate the failure of the intern candidate to meet the requirements of a rotation / domain.
- d. *Coordinator*
 - Only an administrative role with no authority on training outcome. May act as convenor during induction or accreditation assessment.
- e. *Supervisor*
 - Provide starter pack giving details of conditions of internship training.
 - Organize orientation program at commencement of the internship training year.
 - Accessible and available for personal contact on a day-to-day basis.
 - Takes medico legal responsibility of interns.
 - Impart knowledge, skills and competencies in the specific domain.
 - Emphasis in training should be on the core values and skills.
 - Ensure training is in adherence with the prescribed guidelines.
 - Serve as an easy channel of communication between management and Interns.
 - Spokesperson on behalf of Interns.
- f. *Trainers*
 - Responsible for specific domain or area of expertise.
 - Impart knowledge and skills to interns.
 - Program will determine the relevant trainers.
- g. *Responsibilities of Intern Candidate*
 - Promote professional image - always wear appropriate professional clothing.
 - Keep the Portfolio of Evidence updated and perform tasks as required in the Portfolio of Evidence.
 - Completion of the tasks mentioned in the Portfolio of Evidence is entirely the responsibility of the intern but must be monitored by the supervisor.
 - Professional integrity.
 - Ethical behavior.

9. ROTATION AND TRANSFERS

Rotation of intern candidates to “other laboratories outside the training facility” is limited to a maximum period of three (3)-months out of the 24-month internship training or “satellite” laboratories is limited to a maximum period of six (6)-months out of the 24-month internship training in the case of medical biological scientists. In the case of genetic counsellors, the maximum period is limited to six (6)-months out of the 24-month training. Periods longer than prescribed may be considered by the HPCSA based on a motivation. Rotation has to be indicated in the training program. This will be managed on a case-by-case basis.

In cases where internship is completed at more than one training facility, the transfer has to be pre-approved by the HPCSA. On transfer the following requirements should be met for applications for the transfer of Intern Medical Scientists from one training institution to another:

- a. Letter of transfer from the transferring training institution
- b. Letter of acceptance from the receiving training institution
- c. Portfolio of Evidence and Intern Duty Certificate from the transferring training institution

A schedule or planning roster (over the 24-month period) has to be included in the training program including all the various components of the program (please specify each component) with a specific period.

10. CONDITIONS OF EMPLOYMENT

As prescribed by the employer and/or primary stakeholder

11. UNSATISFACTORY PERFORMANCE OF THE INTERN

- a. Appropriate support and assessment measures should be implemented and details of this process and assessment of criteria and intervals need to be included in the portfolio.
- b. Internship training must be concluded within 48 months from the date of registration as an intern.
- c. In the case of an intern become mentally or physically incompetent to perform his or her professional duties, the matter should be reported to the Health Committee of the Board.

12. FACILITY-BASED TRAINING PROGRAMS

- a. Institutions requiring HPCSA accreditation as intern medical scientists training facility is required to develop a structured facility-based training program using the prescribed template.
- b. The program must contain the minimum prescribed elements based on the National Curriculum. Training programs need to be submitted to the HPCSA for approval.
- c. Intern candidates will be assessed based on the accredited program, but in cases where the minimum requirements as prescribed in the core curriculum are not met; it is expected from the candidate to complete outstanding elements to the satisfaction of the Board.

13. CONTINUOUS ASSESSMENT AND ANNUAL REPORTS

- a. Formal evidence-based continuous assessment must be performed over the 24-month period, with at least annual reports.
- b. All components of the training program have to be assessed.
- c. The format of assessment and frequency of assessment have to be clearly indicated.
- d. This is an evidence-based document and will not be accepted without original signatures and dates of each assessment.
- e. Assessment to be discussed with and signed by the intern.
- f. Training facilities are obliged to ensure that intern medical scientists are assessed on a regular basis.
- g. The intern candidate must be kept informed of his/her progress and copies of the progress reports must be retained by the training facility.

- h. Annual progress reports have to be submitted on an annual basis containing all relevant information on internship training and candidate.
- i. Final exit assessment signed off by the head of the department must be provided with the portfolio of evidence (e.g. written or oral assessment, summation of continuous assessment).

14. COMPLETION OF INTERNSHIP

- a. Upon completion of internship training, an intern must submit a duty certificate issued by an authorized official of an accredited training facility, certifying to the satisfaction of the board that he or she has satisfactory undertaken internship training as required by the board and such certificate shall be one of the prerequisites for his or her registration as a medical scientist.
- b. The **Intern Duty Certificate** is included in the Guideline for Submission and Assessment of Portfolio of Evidence.

15. FINAL ASSESSMENT BY A COMPETENCY-BASED BOARD EXAMINATION

- a. Section 61(1)(b)(vii) of the Health Professions Act, 1974 (Act No. 56 of 1974) empowers the Medical and Dental Professions Board to exercise control over the appointment and remuneration of moderators and examiners, as well as any other person required to assist in such examinations.
- b. The Portfolio of Evidence are assessed by two independent external assessors and an independent moderator.
- c. The assessment period will be performed in three cycles per annum – February/March, June/July, October/November.
- d. The submission deadlines are 31 January, 31 May or 30 September. Portfolios may be submitted for examination three months prior to the full completion of the prescribed period.
- e. The process takes approximately 4 weeks following which the HPCSA will inform the supervisor and intern of the outcome.
- f. Where portfolios are not approved i.e. inadequate/insufficient training, the supervisor and intern will be notified in writing. Interns will be required to submit the requested documentation or complete the missing elements of their training before registration can be approved.
- g. If required, an internship period may be extended (for valid reasons). A request for approval clearly stating the reasons should be submitted to the HPCSA.
- h. Guidelines on Assessment and Moderation of Portfolio of Evidence is available.

16. REGISTRATION AS A PROFESSIONAL MEDICAL SCIENTIST WITH THE HPCSA

Registration as a professional medical scientist is possible only after –

- a. The intern demonstrate successful completion of an examination or assessment of competence as determined by the board.
- b. Registration as Medical Scientist will only be possible if a person holds a valid registration as an intern medical scientist.
- c. The registration number of the intern medical scientist must be reflected in all correspondence.

17. REQUIRED FORMS

- 17.1 When registering as a MEDICAL BIOLOGICAL SCIENTIST INTERN please complete and submit **FORM 26 MSIN**. Interns **MUST** submit within 2 months of commencing intern training.

If the academic degree certificate is not available at the time of registration, please complete and submit **Form 23 MSIN, PHIN, GCIN**. Interns **MUST** submit within 2 months of commencing intern training.

FORM 36 MS (Certificate of intern training) to be submitted together with portfolio submission.

Following completion of training, please complete and submit **FORM 24 MS** to register as a MEDICAL BIOLOGICAL SCIENTIST. This may be submitted at the same time as portfolio submission in order to speed up the process (provided portfolio assessment is successful).

- 17.2 When registering as a MEDICAL PHYSICIST INTERN please complete and submit **FORM 26 PHIN**. Interns **MUST** submit within 2 months of commencing intern training.

If the academic degree certificate is not available at the time of registration, please complete and submit **Form 23 MSIN, PHIN, GCIN**. Interns **MUST** submit within 2 months of commencing intern training

FORM 36 PH (Certificate of intern training) to be submitted together with portfolio submission

Following completion of training, please complete and submit **FORM 24 PH** to register as a MEDICAL PHYSICIST. This may be submitted at the same time as portfolio submission in order to speed up the process (provided portfolio assessment is successful).

- 17.3 When registering as a GENETIC COUNSELLING STUDENT please complete and submit FORM 53. Students **MUST** submit within 2 months of commencing their MSc (Med) degree in Genetic Counselling

When registering as a GENETIC COUNSELLING INTERN please complete and submit **FORM 26 GCIN**. Interns **MUST** submit within two months of commencing intern training.

If the academic degree certificate is not available at the time of registration, please complete and submit **Form 23 MSIN, PHIN, GCIN**. Interns **MUST** submit within 2 months of commencing intern training

FORM 36 GC (Certificate of intern training) is to be submitted together with portfolio submission (Intern training certificate).

Following completion of training, please complete and submit **FORM 24 GC** to register as a GENETIC COUNSELLOR. This may be submitted at the same time as portfolio submission in order to speed up the process (provided portfolio assessment is successful)

Evaluation of the intern experience should be completed on FORM MSC F, which is to be submitted with the portfolio.