NATIONAL INSTITUTE FOR HEALTH SPECIALITIES

NIHS Program Requirements for Advanced Specialty Education in Diploma in Robotic Surgery

The Emirati Diploma in Robotic Surgery is expected to define its specific program aims consistent with the overall mission of its Sponsoring Institution, the needs of the community it serves and that its graduates will serve, and the distinctive capabilities of physicians it intends to graduate. The Program must demonstrate substantial compliance with the Common and specialty-specific Program Requirements.

Where applicable, text in italics describes the underlying philosophy of the requirements in that section. These philosophic statements are not program requirements and are therefore not citable.

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Introduction

Int. A. Preamble

Fellowship is advanced graduate medical education beyond a core residency program for physicians who desire to enter more specialized practice. Fellowship-trained physicians serve the public by providing subspecialty care, which may also include core medical care, acting as a community resource for expertise in their field, creating and integrating new knowledge into practice, and educating future generations of physicians. Graduate medical education values the strength that a diverse group of physicians brings to medical care.

Fellows who have completed residency are able to practice independently in their core specialty. The prior medical experience and expertise of fellows distinguish them from physicians entering residency training. The fellow's care of patients within the subspecialty is undertaken with appropriate faculty supervision and conditional independence. Faculty members serve as role models of excellence, compassion, professionalism, and scholarship. The fellow develops deep medical knowledge, patient care skills, and expertise applicable to their focused area of practice. Fellowship is an intensive program of subspecialty clinical and didactic education that focuses on the multidisciplinary care of patients. Fellowship education is often physically, emotionally, and intellectually demanding, and occurs in a variety of clinical learning environments committed to graduate medical education and the well-being of patients, residents, fellows, faculty members, students, and all members of the health care team.

In addition to clinical education, many fellowship programs advance fellows' skills as physician-scientists. While the ability to create new knowledge within medicine is not exclusive to fellowship-educated physicians, the fellowship experience expands a physician's abilities to pursue hypothesis-driven scientific inquiry that results in contributions to the medical literature and patient care. Beyond the clinical subspecialty expertise achieved, fellows develop mentored relationships built on an infrastructure that promotes collaborative research.

Int. B. Definition of Diploma in Robotic Surgery

A Diploma in Robotic Surgery offers intensive training designed for qualified consultant surgeons who specialize in one of the following fields:

- General surgery & colorectal
- Gynecology
- Urology
- Upper GI/Bariatric

The primary objective of this program is to enhance surgical skills, acquire additional knowledge, and develop the ability to provide advanced care to patients with complex surgical conditions using robotic technology.

The program also places a strong emphasis on introducing and setting up the Xi Da Vinci Robot or Existing & Known Robotic Platforms in UAE.

Participants will receive hands-on training on the system through a specialized console, guided step by step by robotic surgery experts specializing in the aforementioned fields.

Int. C. Length of educational program

The educational program in Robotic Surgery is designed to be a 12-month duration, which may vary depending on the annual volume of robotic surgeries conducted in each specialty at the hospital.

The minimum duration for each specialty is as follows:

- General and Colorectal Surgery: 12 months
- Urology: 12 months
- Gynecology: 12 months
- Upper GI/Bariatric: 12 months

Please refer to additional documents for the logbook.

I. Oversight

I.A. Sponsoring Institution

The Sponsoring Institution is the entity that assumes the ultimate financial and academic responsibility for a program of graduate medical education, consistent with the NIHS Institutional Requirements.

The Sponsoring Institution must be the primary clinical defined as the most utilized rotation site of clinical activity for the program.

Background and Intent: *Participating sites will reflect the health care needs of the community and the educational needs of the fellows. A wide variety of organizations may provide a robust educational experience and, thus, Sponsoring Institutions and participating sites may encompass inpatient and outpatient settings.*

I.A.1. The program must be sponsored by one NIHS-accredited Sponsoring Institution. (Core)

I.B. Participating Sites

A participating site is an entity that provides educational experiences or educational assignments/rotations for fellows.

I.B.1. The program, with approval of its Sponsoring Institution, must designate a primary clinical site. (Core)

I.B.1.a) A Diploma in Robotic Surgery advanced training must function as an integral part of an NIHS-accredited program in surgery. (Core)

I.B.2. There must be a program letter of agreement (PLA) between the program and each participating site that governs the relationship between the program and the participating site providing a required assignment. (Core)

I.B.2.a) The PLA must:

I.B.2.a)(1) be renewed at least every 5 years; (Core)

I.B.2.a)(2) be approved by the designated institutional official (DIO); (Core)

I.B.2.a)(3) specify the duration and content of the educational experience; (Core)

I.B.2.a)(4) state the policies and procedures that will govern fellow education during the assignment; (Core)

I.B.2.a)(5) identify the faculty members who will assume educational and supervisory responsibility for fellows; (Core)

I.B.2.a)(6) specify the responsibilities for teaching, supervision, and formal evaluation of fellows. (Core)

I.B.3. The program must monitor the clinical learning and working environment at all participating sites. (Core)

I.B.3.a) At each participating site there must be one faculty member, designated by the program director who is accountable for fellow education at that site, in collaboration with the program director. (Core)

Background and Intent: *While all fellowship programs must be sponsored by a single NIHS-accredited Sponsoring Institution, many programs will utilize other clinical settings to provide required or elective training experiences. At times it is appropriate to utilize community sites that are not owned by or affiliated with the Sponsoring Institution. Some of these sites may be remote for geographic, transportation, or communication issues.*

When utilizing such sites, the program must ensure the quality of the educational experience.

I.B.4. The program director must submit any additions or deletions of participating sites routinely providing an educational experience,

required for all fellows, of one-month full time equivalent (FTE) or more through NIHS Accreditation System. (Core)

I.B.5. Fellow assignments away from the Sponsoring Institution should not prevent fellows' regular participation in required didactics.

I.C. Recruitment

The program, in partnership with its Sponsoring Institution, must engage in practices that focus on mission-driven, ongoing, systematic recruitment and retention of a diverse and inclusive workforce of fellows, residents (if present), faculty members, senior administrative staff members, and other relevant members of its academic community. (Core)

I.D. Resources

I.D.1. The program, in partnership with its Sponsoring Institution, must ensure the availability of adequate resources for fellow education. (Core)

I.D.1.a) Requirements

I.D.1.a)(1) The teaching hospital must have a Da Vinci Xi robot or Existing & Known Robotic Platforms in UAE (Core).

I.D.1.a)(2) The teaching hospital's program should perform the following number of surgeries in each specialty per year: (Core).

- General & Colorectal Surgery: 80 cases per year
- Urology: 25 cases per year
- Gynecology: 40 cases per year.
- Upper GI/Bariatric: 50 cases per year

I.D.1.a)(3) Mentor faculty members should be performing a minimum of: (Core).

- General & Colorectal Surgery: 80 cases per year
- Urology: 25 cases per year
- Gynecology: 40 cases per year
- Upper GI/Bariatric: 50 cases per year

I.D.1.a)(4) Participants must complete the module either through Da Vinci Simulator training or SIMNow or Existing & Known Robotic Platforms in UAE consisting of: (Core).

- E-learning
- Simulation learning (dry lab/Virtual reality/Wet lab)

I.D.1.a)(5) Participants are expected to commit 20 hours per week to this program. (Core).

I.D.1.a)(6) Participants should complete the following number of cases independently per year: (Core).

- General and Colorectal: 20 cases
- Urology: 10 cases
- Gynecology: 20 cases
- Bariatric surgery: 10

I.D.2. The program, in partnership with its Sponsoring Institution, must ensure healthy and safe learning and working environments that promote fellow well-being and provide for (Core):

I.D.2.a) access to food while on duty; (Core)

I.D.2.b) safe, quiet, clean, and private sleep/rest facilities available and accessible for fellows with proximity appropriate for safe patient care; (Core)

I.D.2.d) security and safety measures appropriate to the participating site; (Core)

I.D.3. Fellows must have ready access to specialty-specific and other appropriate reference material in print or electronic format. This must include access to electronic medical literature databases with full text capabilities. (Core)

I.D.4. The program's educational and clinical resources must be adequate to support the number of fellows appointed to the program. (Core)

I.E. Other Learners and Other Care Providers

A fellowship program usually occurs in the context of many learners and other care providers and limited clinical resources. It should be structured to optimize education for all learners present. (Core)

I.E.1. Fellows should contribute to the education of residents in core programs if present. (Core)

II. Personnel

II.A. Program Director

II.A.1. There must be one faculty member appointed as program director with authority and accountability for the overall program, including compliance with all applicable program requirements. (Core)

II.A.1.a) The Sponsoring Institution's GMEC must approve a change in program director. (Core)

II.A.1.b) The program must demonstrate retention of the program director for a length of time adequate to maintain continuity of leadership and program stability. (Core)

II.A.2. At a minimum, the program director must be provided with the salary support required to devote 30 percent FTE of non-clinical time to the administration of the program. (Core)

II.A.3. Qualifications of the program director:

II.A.3.a) must include subspecialty expertise and at least three years of documented educational and/or administrative experience, or qualifications acceptable to the Central Accreditation Committee; (Core)

II.A.3.b) must be licensed as consultant and have at least three years post fellowship documented experience in Robotic Surgery, or with a specialty qualification that are acceptable to the Central Accreditation Committee; (Core)

II.A.3.c) must include current medical licensure and appropriate medical staff appointment; (Core)

II.A.3.d) must include ongoing clinical activity; (Core)

II.A.4. Program Director Responsibilities

The program director must have responsibility, authority, and accountability for administration and operations; teaching and scholarly activity; fellow recruitment and selection, evaluation, and promotion of fellows, and disciplinary action; supervision of fellows; and fellow education in the context of patient care. (Core)

II.A.4.a) The program director must:

II.A.4.a)(1) be a role model of professionalism; (Core)

II.A.4.a)(2) design and conduct the program in a fashion consistent with the needs of the community, the mission(s) of the Sponsoring Institution, and the mission(s) of the program; (Core)

II.A.4.a)(3) administer and maintain a learning environment conducive to educating the fellows in each of the NIHS Competency domains; (Core)

II.A.4.a)(4) develop and oversee a process to evaluate candidates prior to approval as program faculty members for participation in the fellowship program education and at least annually thereafter; (Core)

II.A.4.a)(5) have the authority to approve and/or remove program faculty members for participation in the fellowship program education at all sites; (Core)

II.A.4.a)(6) have the authority to remove fellows from supervising interactions and/or learning environments that do not meet the standards of the program; (Core)

II.A.4.a)(7) provide applicants who are offered an interview with information related to the applicant's eligibility for the relevant subspecialty board examination(s); (Core)

II.A.4.a)(8) provide a learning and working environment in which fellows have the opportunity to raise concerns and provide feedback in a confidential manner as appropriate, without fear of intimidation or retaliation; (Core)

II.A.4.a)(9) ensure the program's compliance with the Sponsoring Institution's policies and procedures related to grievances and due process; (Core)

II.A.4.a)(10) ensure the program's compliance with the Sponsoring Institution's policies and procedures for due process when action is taken to suspend or dismiss, not to promote, or not to renew the appointment of a fellow; (Core)

II.A.4.a)(11) document verification of program completion for all graduating fellows; within 30 days; (Core)

II.A.4.a)(12) provide verification of an individual fellow's completion upon the fellow's request, within 30 days; (Core)

II.A.5. Associate Program Director (APD):

II.A.5.a) For programs with an approved fellow complement of more than 15, one of the subspecialty-certified core faculty members must be appointed as associate program director to assist the program director with the administrative and clinical oversight of the program. (Core)

II.A.5.b) The sponsoring institution is required to allocate 0.3 FTE (equivalent to 12 hours per week) of protected time for the Associate Program Director (APD) to focus on education and program administration. The APD should not exceed 0.7 FTE in a clinical capacity (Core)

II.A.5.c) APD should assume the role for a duration suitable for ensuring program continuity and stability. (Core)

II.B. Faculty

Faculty members are a foundational element of graduate medical education – faculty members teach fellows how to care for patients. Faculty members provide an important bridge allowing fellows to grow and become practice-ready, ensuring that patients receive the highest quality of care.

Faculty members ensure that patients receive the level of care expected from a specialist in the field. Faculty members provide appropriate levels of supervision to promote patient safety. Faculty members create an effective learning environment by acting in a professional manner and attending to the well-being of the fellows and themselves.

II.B.1. At each participating site, there must be enough faculty members with competence to instruct and supervise all fellows at that location. (Core)

II.B.1.a) The ratio of all faculty to fellows must be a minimum of 1:1. (Core)

II.B.2. Faculty members must:

II.B.2.a) be role models of professionalism; (Core)

II.B.2.c) demonstrate a strong interest in the education of fellows; (Core)

II.B.2.d) devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities; (Core)

II.B.2.e) administer and maintain an educational environment conducive to educating fellows; (Core)

II.B.3. Faculty Qualifications

II.B.3.a) Faculty members must have appropriate qualifications in their field and hold appropriate institutional appointments. (Core)

II.B.3.b) Physician faculty members must:

II.B.3.b)(1) have current license in Subspeciality or other specialty as required, or possess qualifications judged acceptable to the Central Accreditation Committee. (Core)

II.B.3.c) Any non-physician faculty members who participate in fellowship program education must be approved by the program director. (Core)

II.C. Program Coordinator

II.C.1. There must be a program coordinator. (Core)

II.C.2. At a minimum, the program coordinator must be provided with adequate time for the administration of the program. (Core)

II.D. Other Program Personnel

The program, in partnership with its Sponsoring Institution, must jointly ensure the availability of necessary personnel for the effective administration of the program. (Core)

III. Fellows Appointments

III.A. Eligibility Requirements

III.A.1. Consultants with a minimum of 3 years' experience in the following core specialties are required: (Core)

For details refer to Adnexa 1.

- Laparoscopic in General and Colorectal Surgery: minimum 50 cases/year
- Urology minimum 25 cases/year (either open or laparoscopy)
- Laparoscopic in Gynecology: minimum 30 cases/year
- Laparoscopic Upper GI/Bariatric: minimum 20 cases/year

III.A.2. Additionally: (Core)

- They must hold a valid DOH, DHA, MOHAP license.
- For international candidates, each applicant will undergo an individual review based on their logbooks and medical licenses.

III.B. Number of Fellows

III.B.1. The program director must not appoint more fellows than approved by the Central Accreditation Committee. (Core)

III.B.2. All changes in fellow's complement must be approved by the NIHS Central Accreditation Committee. (Core)

III.B.3. The number of fellows appointed to the program must not exceed the program's educational and clinical resources. (Core)

III.B.4. The program must offer a minimum of 2 available fellow positions per year for each specialty, as follows:

- 2 in General Surgery and Colorectal
- 1 in Urology
- 2 in Gynecology
- 2 Upper GI/Bariatric

III.B.5. Additionally, hospitalists or specialists may be involved as assistants in the Robotic Surgery program.

III.C. Fellows Transfers

The program must obtain verification of previous educational experiences and a summative competency-based performance evaluation prior to acceptance of a transferring fellow, and Milestones evaluations upon matriculation. (Core)

IV. Educational Program

The NIHS accreditation system is designed to encourage excellence and innovation in medical education regardless of the organizational affiliation, size, or location of the program.

The educational program must support the development of knowledgeable, skillful physicians who provide compassionate care.

IV.A. Curriculum Components

The Educational Curriculum must contain the following educational components: (Core)

IV.A.1. A set of program aims consistent with the Sponsoring Institution's mission, the needs of the community it serves, and the desired distinctive capabilities of its graduates. (Core)

IV.A.2. Competency-based goals and objectives for each educational experience are designed to promote progress on a trajectory to autonomous. (Core)

IV.A.2.a) These goals and objectives must be distributed and available to fellows and faculty members. (Core)

IV.A.3. Delineation of fellow responsibilities for patient care, progressive responsibility for patient management, and graded supervision in their subspecialty. (Core)

IV.A.4. Structured educational activities beyond direct patient care. (Core)

IV.A.5. Advancement of fellows' knowledge of ethical principles foundational to medical professionalism. (Core)

IV.B. Defined Core Competencies

IV.B.1. The program must integrate the following Core Competencies into the curriculum: (Core)

IV.B.1.a) Professionalism

Fellows must demonstrate a commitment to professionalism and an adherence to ethical principles. (Core)

IV.B.1.b) Patient Care and Procedural Skills

IV.B.1.b)(1) Fellows must be able to provide patient care that is appropriate, and effective for the treatment or health problems and the promotion of health. (Core)

IV.B.1.b)(1)(a) Fellows must develop competence in and execute comprehensive patient care plans appropriate for the consultant level. (Core)

IV.B.1.b)(1)(b) Fellow must demonstrate a commitment to continuity of comprehensive patient care. (Core)

IV.B.1.b)(2) Fellows must be able to perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. (Core)

IV.B.1.b)(2)(a) Fellows must demonstrate competence in manual dexterity appropriate for their level. (Core)

IV.B.1.b)(2)(b) Fellows must demonstrate competence in technical and non-technical skills sufficient to safely perform essential/core procedures with an appropriate level of independence based on the individual Fellow's required level of supervision. (Core)

IV.B.1.b)(3) Fellows must keep a logbook for the all performed procedures. (Core)

IV.B.1.c) Medical Knowledge

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social behavioral sciences, as well as the application of this knowledge to patient care. (Core)

IV.B.1.c)(1) Fellows must exhibit competence in critically evaluating and demonstrating their knowledge of pertinent scientific information. (Core)

IV.B.1.c)(2) Fellows must demonstrate an understanding of the fundamentals of basic science as it applies to robotic surgery. (Core)

IV.B.1.c)(3) Consultant General and Colorectal Surgeons, Urologists, or Gynecologists, or upper GI/Bariatric must demonstrate a comprehensive knowledge of the principles of their respective specialties at the consultant level and must showcase current, up-to-date management practices in their respective specialties. (Core)

IV.B.1.d) Practice-based Learning and Improvement

Fellows are expected to demonstrate their capacity to investigate and assess patient care, applying scientific evidence, and to continually enhance patient care through ongoing self-evaluation and lifelong learning (Core)

IV.B.1.e) Interpersonal and Communication Skills

Fellows must exhibit interpersonal and communication skills that facilitate effective information exchange and collaboration with patients, their families, and fellow health professionals. (Core)

IV.B.1.f) Systems-based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinants of health, as well as the ability to call effectively on other resources to provide optimal health care. (Core)

IV.C. Curriculum Organization and Fellow Experiences

IV.C.1. The curriculum must be structured to optimize fellow educational experiences, the length of these experiences, and supervisory continuity. (Core)

IV.C.1.a) Clinical experiences should be structured to facilitate learning in a manner that allows fellows to function as part of an effective interprofessional team that works together towards the shared goals of patient safety and quality improvement. (Core)

IV.C.2. Specific requirements

Applicants must have a minimum of 3 years of experience after obtaining a consultant license in one of the following specialties: general and colorectal surgery, urology, or gynecology, upper GI/bariatric and have been trained in laparoscopy surgery, except urology can be open or laparoscopy training. (Core)

IV.C.3. The training requirements are as follows:

IV.C.3.a) Fellows are required to complete the Da Vinci eLearning module on the simulator, or on Existing and known robotic platforms in UAE which consists of 2.5 hours of training. (Core)

IV.C.3.b) Fellows must complete virtual reality modules totaling 5 hours. (Core)

IV.C.3.c) Fellows should start with the Beginner module, which includes the completion of 11 exercises in one sitting, with no prior practice. (Core)

IV.C.3.d) After completing the Beginner module, fellows should advance to the Intermediate and Advanced modules. (Core)

IV.C.3.e) Fellows must successfully complete all tasks on the simulators, achieving a score of over 80%. (Core)

IV.C.3.f) The Da Vinci Console will record the performance of each fellow. (Core)

IV.C.3.g) Da Vinci in-service training will be led by a Da Vinci surgeon, providing fellows with hands-on experience using the Da Vinci system and requiring a specific amount of time. (Core)

IV.C.3.h) Commitment of 4 hours per day. (Core) (See the below table).

IV.C.3.i) Hands-on Dry Simulation (9 tasks) Prior to Console Operation: (Core)

- Peg Transfer
- Clutch/Camera Movement
- Rubber Band Transfer
- Suturing (Simple Interrupted)
- Clutch/Camera Peg Transfer
- Rubber Band Transfer (again)
- Running/Cutting Rubber Band
- Pattern Cut
- Suture Running

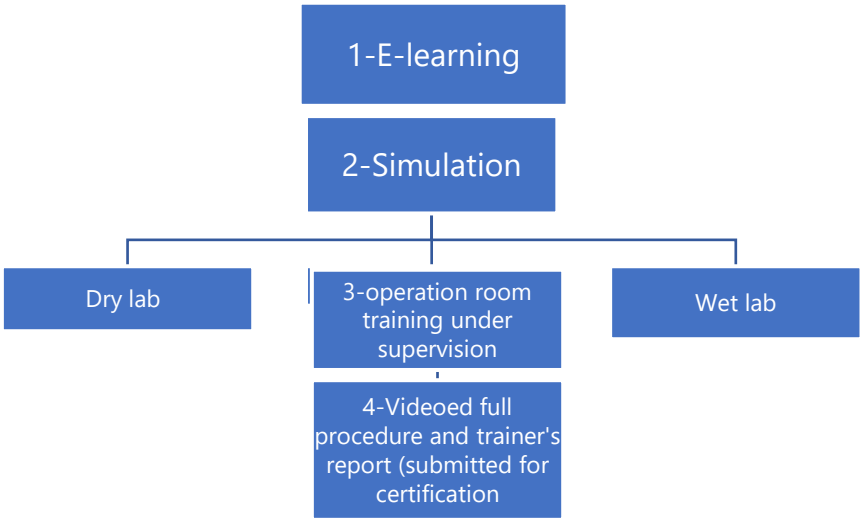
IV.C.3.j) Bedside Assisted Cases (Minimum of 10 cases), Including: (Core)

- Port Placement
- Docking the Patient
- Cart Instrument Insertion and Change
- Assisting During the Procedure

IV.C.3.k) Console Training: (Core)

- Fellows must complete a minimum of 20 cases specific to their specialty.
- Initially, fellows will perform specific tasks as directed by the Robotic Surgeon and gradually progress to more complex portions of the procedures under close supervision.
- Fellows are expected to dedicate 20 hours per week to the fellowship program for a duration of 12 months.
- All cases must be logged on to the Da Vinci Case Tracker, and more than 50% of the cases should be recorded under the fellow's name.

IV.C.4. Summary of the curriculum:



V. Evaluation

V.A. Fellow Evaluation

V.A.1. Feedback and Evaluation

Formative and summative evaluation have distinct definitions.

Formative evaluation is monitoring fellow learning and providing ongoing feedback that can be used by fellows to improve their learning.

More specifically, formative evaluations help:

- fellows identify their strengths and weaknesses and target areas that need work

- program directors and faculty members recognize where fellows are struggling and address problems immediately.

Summative evaluation is evaluating a fellow's learning by comparing the fellows against the goals and objectives of the rotation and program, respectively and is utilized to make decisions about promotion to the next level of training, or program completion.

End-of-year evaluations have both summative and formative components. Information from a summative evaluation can be used formatively when fellows or faculty members use it to guide their efforts and activities in subsequent rotations and to successfully complete the fellowship program.

V.A.1.a) Faculty members must directly observe, evaluate, and frequently provide feedback on fellow performance during each rotation or similar educational assignment. (Core)

This feedback will allow for the development of the learner as they strive to achieve the Milestones. More frequent feedback is strongly encouraged for fellows who have deficiencies that may result in a poor final rotation evaluation.

V.A.1.a)(1) The faculty must discuss this evaluation with each fellow at the completion of each assignment. (Core)

V.A.1.a)(2) Assessment of procedural competence should include a formal evaluation process and not be based solely on a minimum number of procedures performed. (Detail)

V.A.1.b) Evaluation must be documented at the completion of the assignment. (Core)

V.A.1.b)(1) For block rotations of greater than three months in duration, evaluation must be documented at least every three months. (Core)

V.A.1.b)(2) For block rotations of any duration, a written evaluation must be provided at the end of the rotation. (Core)

V.A.1.b)(3) Longitudinal experiences, such as continuity clinic in the context of other clinical responsibilities, must be evaluated at least every three months and at completion. (Core)

V.A.1.c) The program must provide an objective performance evaluation based on the Competencies and the specialty-specific Milestones, and must: (Core)

V.A.1.c)(1) use multiple evaluators (e.g., faculty members, peers, patients, self, and other professional staff members) (Core)

V.A.1.c)(2) provide that information to the Clinical Competency Committee for its synthesis of progressive fellow performance and improvement toward unsupervised practice. (Core)

V.A.1.d) The program director or their designee, with input from the Clinical Competency Committee, must:

V.A.1.d)(1) Meet with and review with each fellow their documented semi-annual evaluation of performance, including progress and the specialty-specific Milestones (Core)

V.A.1.d)(1)(a) Review of fellow Case-Logs must be a part of the semi-annual review. (Detail)

V.A.1.d)(2) assist fellow in developing individualized learning plans to capitalize on their strengths and identify areas for growth; (Core)

V.A.1.d)(3) develop plans for fellows failing to progress, following both the NIHS Emirati Board and institutional policies and procedures. (Core)

V.A.1.e) At least annually, there must be a summative evaluation of each fellow that includes their readiness to progress to the next year of the program, if applicable. (Core)

V.A.1.f) The evaluations of a fellow's performance must be accessible for review by the fellow. (Core)

V.A.2. Final Evaluation

V.A.2.a) The program director must provide a final evaluation for each fellow upon completion of the program. (Core)

V.A.2.a)(1) Diploma in Robotic surgery -specific Milestones, and when applicable the specific Case Logs, must be used as tools to document performance and verify that the fellow has demonstrated sufficient competence to be able to engage in autonomous practice upon completion of the

program, and once he/she obtain the license to practice Robotic surgery. (Core)

V.A.2.a)(2) The final evaluation must:

V.A.2.a)(2)(a) become part of the fellow's permanent record maintained by the institution, and must be accessible for review by the fellow in accordance with institutional policy; (Core)

V.A.2.a)(2)(b) verify that the fellow has demonstrated the knowledge, skills, and behaviours necessary to enter autonomous practice; (Core)

V.A.2.a)(2)(c) consider recommendations from the Clinical Competency Committee (Core)

V.A.2.a)(2)(d) be shared with the fellow upon completion of the program. (Core)

V.A.2.a)(3) Upon completing the program, participants must submit their comprehensive case log, including a record of 20 cases completed independently within their related specialty under faculty member supervision. Following evaluation by the program director, candidates who meet the program requirements will receive a certificate of diploma in Robotic Surgery in either General & Colorectal Surgery, Urology, or Gynecology or upper GI/Bariatric surgery. (Core)

V.A.3. A Clinical Competency Committee must be appointed by the program director. (Core)

V.A.3.a) The Clinical Competency Committee must include at least three members of the program faculty, at least one of whom is a core faculty member. (Core)

V.A.3.a)(1) Additional members must be faculty members from the same program or other programs, or other health professionals who have extensive contact and experience with the program's fellows. (Core)

V.A.3.a)(2) The Program Director has final responsibility for fellow evaluation and promotion decisions. (Core)

V.A.3.b) The Clinical Competency Committee must:

V.A.3.b)(1) Review all fellows' evaluations at least every quarter. (Core)

V.A.3.b)(2) Assess each fellow's progress towards achieving specialty-specific milestones. (Core)

V.A.3.b)(3) Convene prior to the semi-annual evaluations of the fellows and provide guidance to the program director regarding each fellow's progress. (Core)

V.B. Faculty Evaluation

V.B.1. The program must have a process to evaluate each faculty member's performance as it relates to the educational program at least annually. (Core)

V.B.1.a) This evaluation must include a review of the faculty member's clinical teaching abilities, engagement with the educational program, participation in faculty development related to their skills as an educator, clinical performance, review of patient outcomes, professionalism, research, and scholarly activities. (Core)

V.B.1.b) This evaluation must include written, anonymous, and confidential evaluations by the fellows. (Core)

V.B.2. Faculty members must receive feedback on their evaluations at least annually. (Core)

V.B.3. Results of the faculty educational evaluations should be incorporated into program-wide faculty development plans. (Core)

V.C. Program Evaluation and Improvement

V.C.1. The program director must appoint the Program Evaluation Committee to conduct and document the Annual Program Evaluation as part of the program's continuous improvement process. (Core)

The performance of fellows and faculty members reflects program quality and will use metrics to reflect the program's goals.

The Program Evaluation Committee must present the Annual Program Evaluation Report in a written form to be discussed with all program faculty and fellows as a part of continuous improvement plans.

V.C.1.a) The Program Evaluation Committee must be composed of at least two program faculty members, at least one of whom is a core faculty member, and at least one fellow. (Core)

V.C.1.b) Program Evaluation Committee responsibilities must include:

V.C.1.b)(1) acting as an advisor to the program director, through program oversight; (Core)

V.C.1.b)(2) review of the program's requirements, both NIHS Emirati Board required and program self-determined goals, and the progress toward meeting them; (Core)

V.C.1.b)(3) guiding ongoing program improvement, including developing new goals based upon outcomes; (Core)

V.C.1.b)(4) review of the current operating environment to identify strengths, challenges, opportunities, and threats related to the program's mission and aims. (Core)

V.C.1.c) The Program Evaluation Committee should consider the following elements in its assessment of the program:

V.C.1.c)(1) program curriculum; (Core)

V.C.1.c)(2) outcomes from prior Annual Program Evaluation(s); (Core)

V.C.1.c)(3) NIHS letters of notification including citations, areas for improvement, and comments; (Core)

V.C.1.c)(4) the quality and safety of patient care; (Core)

V.C.1.c)(5) Aggregate fellows and the faculty:

V.C.1.c)(5)(a) well-being; (Core)

V.C.1.c)(5)(b) recruitment and retention following institutional policies; (Core)

V.C.1.c)(5)(c) workforce diversity following institutional policies; (Core)

V.C.1.c)(5)(d) engagement in quality improvement and patient safety; (Core)

V.C.1.c)(5)(e) scholarly activity; (Core)

V.C.1.c)(5)(f) Fellows and Faculty Surveys; (Core)

V.C.1.c)(5)(g) written evaluations of the program (see above). (Core)

V.C.1.c)(6) Aggregate fellow:

V.C.1.c)(6)(a) achievement of the Milestones; (Core)

V.C.1.c)(6)(b) in-training examination results; (Core)

V.C.1.c)(6)(c) board pass and certification rates; (Core)

V.C.1.c)(6)(d) graduates' performance. (Core)

V.C.1.c)(7) Aggregate faculty:

V.C.1.c)(7)(a) faculty evaluation; (Core)

V.C.1.c)(7)(b) professional development. (Core)

V.C.1.d) The Program Evaluation Committee must evaluate the program's mission and aims, strengths, areas for improvement, and threats. (Core)

V.C.1.e) The Annual Program Evaluation review, including the action plan, must:

V.C.1.e)(1) be distributed to and discussed with the members of the teaching faculty and the fellows; (Core)

V.C.1.e)(2) be submitted to the DIO. (Core)

V.C.2. The program will be accredited and reaccredited by the NIHS in accordance with NIHS Accreditation Bylaws.

V.C.2.a) The program must complete a Self-Study before its reaccreditation Site Visit. (Core)

V.C.2.b) The Self-Study is an objective, comprehensive evaluation of the fellowship program with the aim to improve it. (Detail)

V.C.3. The goal of NIHS-accredited education is to train physicians who seek and achieve a board certification. One measure of the effectiveness of the educational program is the ultimate pass rate. (Outcome)

V.C.3.a) Under the guidance of the Program Director all eligible program graduates should take the certifying examination conducted by the NIHS to obtain the Certification. (Outcome)

V.C.3.b) Graduates are eligible to sit for the Certification examination for up to three years from the date of completion of fellowship training. (Outcome)

V.C.4. During the fellowship, the fellows are strongly encouraged to sit for an organized Annual In-Training Examination. (Detail)

VI. The Learning and Working Environment

Fellowship education must occur in the context of a learning and working environment that emphasizes the following principles:

- Excellence in the safety and quality of care rendered to patients by fellows today

- Excellence in the safety and quality of care rendered to patients by today's fellows in their future practice

VI.A. Patient Safety, Quality Improvement, Supervision, and Accountability

VI.A.1. Patient Safety and Quality Improvement

It is necessary for fellows and faculty members to consistently work in a well-coordinated manner with other health care professionals to achieve organizational patient safety goals.

VI.A.1.a) Patient Safety

VI.A.1.a)(1) Culture of Safety

A culture of safety requires continuous identification of vulnerabilities and a willingness to transparently deal with them. An effective organization has formal mechanisms to assess the knowledge, skills, and attitudes of its personnel toward safety to identify areas for improvement.

VI.A.1.a)(1)(a) The program, its faculty and fellows must actively participate in patient safety systems and contribute to a culture of safety. (Core)

VI.A.1.a)(1)(b) The program must have a structure that promotes safe, inter-professional, team-based care. (Core)

VI.A.1.a)(2) Education on Patient Safety

Programs must provide formal educational activities that promote patient safety-related goals, tools, and techniques. (Core)

VI.A.1.a)(3) Patient Safety Events

Reporting, investigation, and follow-up of adverse events, near misses, and unsafe conditions are pivotal mechanisms for improving patient safety and are essential for the success of any patient safety program. Feedback and experiential learning are essential to developing true competence in the ability to identify causes and institute sustainable systems-based changes to ameliorate patient safety vulnerabilities.

VI.A.1.a)(3)(a) Fellows, faculty members, and other clinical staff members must:

- know their responsibilities in reporting patient safety events at the clinical site; (Core)
- know how to report patient safety events, including near misses, at the clinical site; (Core)
- be provided with summary information of their institution's patient safety reports. (Core)

VI.A.1.a)(3)(b) Fellows must participate as team members in real and/or simulated inter-professional clinical patient safety activities, such as root cause analyses or other activities that include analysis, as well as formulation and implementation of actions. (Core)

VI.A.1.a)(4) Fellow Education and Experience in Disclosure of Adverse Events

Patient-centered care requires patients, and when appropriate families, to be apprised of clinical situations that affect them, including adverse events. This is an important skill for faculty physicians to model, and for fellows to develop and apply.

VI.A.1.a)(4)(a) All fellows must receive training in how to disclose adverse events to patients and families. (Core)

VI.A.1.a)(4)(b) Fellows should have the opportunity to participate in the disclosure of patient safety events, real or simulated. (Detail)

VI.A.1.b) Quality Improvement

VI.A.1.b)(1) Education in Quality Improvement

A cohesive model of health care includes quality-related goals, tools, and techniques that are necessary for health care professionals to achieve quality improvement goals.

Fellows must receive training and experience in quality improvement processes, including an understanding of health care disparities. (Core)

VI.A.1.b)(2) Quality Metrics

Access to data is essential to prioritizing activities for care improvement and evaluating success of improvement efforts.

Fellows and faculty members must receive data on quality metrics and benchmarks related to their patient populations. (Core)

VI.A.1.b)(3) Engagement in Quality Improvement Activities

Experiential learning is essential to developing the ability to identify and institute sustainable systems-based changes to improve patient care.

Fellows must have the opportunity to participate in inter-professional quality improvement activities. (Core)

VI.A.2. Supervision and Accountability

VI.A.2.a) Although the attending physician is ultimately responsible for the care of the patient, every physician shares in the responsibility and accountability for their efforts in the provision of care. Effective programs, in partnership with their Sponsoring Institutions, define, widely communicate, and monitor a structured chain of responsibility and accountability as it relates to the supervision of all patient care.

Supervision in the setting of fellowship medical education provides safe and effective care to patients; ensures each fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishes a foundation for continued professional growth.

VI.A.2.a)(1) Each patient must have an identifiable and appropriately-credentialed and privileged attending physician who is responsible and accountable for the patient's care. (Core)

VI.A.2.a)(1)(a) This information must be available to fellows, faculty members, other members of the health care team, and patients. (Core)

VI.A.2.a)(1)(b) Fellows and faculty members must inform each patient of their respective roles in that patient's care when providing direct patient care. (Core)

VI.A.2.b) Supervision may be exercised through a variety of methods. For some aspects of patient care, the supervising physician may be a more advanced fellow. Other portions of care provided by the fellow can be adequately supervised by the appropriate availability of the supervising faculty member, or

senior fellow physician, either on site or by means of telecommunication technology. Some activities require the physical presence of the supervising faculty member. In some circumstances, supervision may include post-hoc review of fellow-delivered care with feedback.

VI.A.2.b)(1) The program must demonstrate that the appropriate level of supervision in place for all fellows is based on each fellow's level of training and ability, as well as patient complexity and acuity. Supervision may be exercised through a variety of methods, as appropriate to the situation. (Core)

VI.A.2.b)(2) The program must define when the physical presence of a supervising physician is required. (Core)

VI.A.2.c) Levels of Supervision

To promote appropriate fellow supervision while providing for graded authority and responsibility, the program must use the following classification of supervision: (Core)

VI.A.2.c)(1) Direct Supervision: the supervising physician is physically present with the fellow during the key portions of the patient interaction. (Core)

VI.A.2.c)(2) Indirect Supervision: the supervising physician is not providing physical or concurrent visual or audio supervision but is immediately available to the fellow for guidance and is available to provide appropriate direct supervision. (Core)

VI.A.2.c)(3) Oversight: the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered. (Core)

VI.A.2.d) The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each fellow must be assigned by the program director and faculty members. (Core)

VI.A.2.d)(1) The program director must evaluate each fellow' abilities based on specific criteria, guided by the Milestones. (Core)

VI.A.2.d)(2) Faculty members functioning as supervising physicians must delegate portions of care to fellows based

on the needs of the patient and the skills of each fellow. (Core)

VI.A.2.d)(3) Fellows should serve in a supervisory role to junior fellows and residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow. (Detail)

VI.A.2.e) Programs must set guidelines for circumstances and events in which fellows must communicate with the supervising faculty member(s). (Core)

Each fellow must know the limits of their scope of authority, and the circumstances under which the fellow is permitted to act with conditional independence. (Outcome)

VI.A.2.f) Faculty supervision assignments must be of sufficient duration to assess the knowledge and skills of each fellow and to delegate to the fellow the appropriate level of patient care authority and responsibility. (Core)

VI.B. Professionalism

VI.B.1. Programs, in partnership with their Sponsoring Institutions, must educate fellows and faculty members concerning the professional responsibilities of physicians, including their obligation to be appropriately rested and fit to provide the care required by their patients. (Core)

VI.B.2. The learning objectives of the program must:

VI.B.2.a) be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; (Core)

VI.B.2.b) be accomplished without excessive reliance on fellows to fulfill non-physician obligations; (Core)

VI.B.2.c) ensure manageable patient care responsibilities. (Core)

VI.B.3. The program director, in partnership with the Sponsoring Institution, must provide a culture of professionalism that supports patient safety and personal responsibility. (Core)

VI.B.4. Fellows and faculty members must demonstrate an understanding of their personal role in the:

VI.B.4.a) provision of patient- and family-centered care; (Outcome)

VI.B.4.b) safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and adverse events; (Outcome)

VI.B.4.c) assurance of their fitness for work, including: (Outcome)

VI.B.4.c)(1) management of their time before, during, and after clinical assignments; (Outcome)

VI.B.4.c)(2) recognition of impairment, including from illness, fatigue, and substance use, in themselves, their peers, and other members of the health care team. (Outcome)

VI.B.4.d) commitment to lifelong learning; (Outcome)

VI.B.4.e) monitoring of their patient care performance improvement indicators; (Outcome)

VI.B.4.f) accurate reporting of clinical and educational work hours, patient outcomes, and clinical experience data. (Outcome)

VI.B.5. All fellows and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. This includes the recognition that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider. (Outcome)

VI.B.6. Programs, in partnership with their Sponsoring Institutions, must provide a professional, equitable, respectful, and civil environment that is free from discrimination, sexual and other forms of harassment, mistreatment, abuse, or coercion of fellows, faculty, and staff. (Core)

VI.B.7. Programs, in partnership with their Sponsoring Institutions, should have a process for education of fellows and faculty regarding unprofessional behavior and a confidential process for reporting, investigating, and addressing such concerns. (Core)

VI.C. Well-Being

Fellows and faculty members are at risk for burnout and depression. Programs, in partnership with their Sponsoring Institutions, have the same responsibility to address well-being as other aspects of fellow competence. Physicians and all members of the health care team share responsibility for the well-being of each other.

VI.C.1. The responsibility of the program, in partnership with the Sponsoring Institution, to address well-being must include:

VI.C.1.b) attention to scheduling, work intensity, and work compression that impacts fellow well-being; (Core)

VI.C.1.c) evaluating workplace safety data and addressing the safety of fellows and faculty members; (Core)

VI.C.1.d) policies and programs that encourage optimal fellow and faculty member well-being; (Core)

VI.C.1.e) attention to fellow and faculty member burnout, depression, and substance use disorders.

The program, in partnership with its Sponsoring Institution, must: (Core)

VI.C.1.e)(1) encourage fellows and faculty members to alert the program director or other designated personnel or programs when they are concerned that another fellow, or faculty member may be displaying signs of burnout, depression, a substance use disorder, suicidal ideation, or potential for violence; (Core)

VI.C.1.e)(2) provide access to appropriate tools for self-screening; (Core)

VI.C.1.e)(3) provide access to confidential, affordable mental health assessment, counseling, and treatment, including access to urgent and emergent care 24 hours a day, seven days a week. (Core)

VI.C.2. There are circumstances in which fellows may be unable to attend work, including but not limited to fatigue, illness, family emergencies, and parental leave. Each program must allow an appropriate length of absence for fellows unable to perform their patient care responsibilities. (Core)

VI.C.2.a) The program must have policies and procedures in place to ensure coverage of patient care. (Core)

VI.C.2.b) These policies must be implemented without fear of negative consequences for the fellow who is or was unable to provide the clinical work. (Core)

VI.D. Fatigue Mitigation

VI.D.1. Programs must:

VI.D.1.a) educate all faculty members and fellows to recognize the signs of fatigue and sleep deprivation; (Core)

VI.D.1.b) educate all faculty members and fellows in alertness management and fatigue mitigation processes; (Core)

VI.D.2. Each program must ensure continuity of patient care, consistent with the program's policies and procedures, if a fellow may be unable to perform their patient care responsibilities due to excessive fatigue. (Core)

VI.D.3. The program, in partnership with its Sponsoring Institution, must ensure adequate sleep facilities and safe transportation options for fellows who may be too fatigued to safely return home. (Core)

VI.E. Clinical Responsibilities, Teamwork, and Transitions of Care

VI.E.1. Clinical Responsibilities

The clinical responsibilities for each fellow must be based on PGY level, patient safety, fellow ability, severity and complexity of patient illness/condition, and available support services. (Core)

VI.E.2. Teamwork

Fellows must care for patients in an environment that maximizes communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty and larger health system. (Core)

VI.E.3. Transitions of Care

VI.E.3.a) Programs must design clinical assignments to optimize transitions in patient care, including their safety, frequency, and structure. (Core)

VI.E.3.d) Programs and clinical sites must maintain and communicate schedules of attending physicians and fellows currently responsible for care. (Core)

VI.E.3.e) Each program must ensure continuity of patient care, consistent with the program's policies and procedures, if a fellow may be unable to perform their patient care responsibilities due to excessive fatigue or illness, or family emergency. (Core)

VI.F. Clinical Experience and Education

Programs, in partnership with their Sponsoring Institutions, must design an effective program structure that is configured to provide fellows with educational and clinical experience opportunities, as well as reasonable opportunities for rest and personal activities.

VI.F.1. Maximum Hours of Clinical and Educational Work per Week

Clinical and educational work hours must be limited to no more than 80 hours per week, averaged over a four-week period, inclusive of all in-house clinical and educational activities and clinical work done from home. (Core)

VI.F.2. Mandatory Time Free of Clinical Work and Education

VI.F.2.a) The program must design an effective program structure that is configured to provide fellows with educational opportunities, as well as reasonable opportunities for rest and personal well-being. (Core)

VI.F.2.c) Fellows must have at least 14 hours free of clinical work and education after 24 hours of in-house call. (Core)

VI.F.2.d) Fellows must be scheduled for a minimum of one day in seven free of clinical work and required education (when averaged over four weeks). At-home call cannot be assigned on these free days. (Core)

VI.F.3. Maximum Clinical Work and Education Period Length

VI.F.3.a) Clinical and educational work periods for fellows must not exceed 24 hours of continuous scheduled clinical assignments. (Core)

VI.F.3.a)(1) Up to four hours of additional time may be used for activities related to patient safety, such as providing effective transitions of care, and/or fellow education. (Core)

VI.F.3.a)(1)(a) Additional patient care responsibilities must not be assigned to a fellow during this time. (Core)

VI.F.5. Moonlight

Fellows are not permitted to moonlight. (Core)

*Core Requirements: Statements that define structure, resource, or process elements essential to every graduate medical educational program.

†Detail Requirements: Statements that describe a specific structure, resource, or process, for achieving compliance with a Core Requirement. Programs and sponsoring institutions in substantial compliance with the Outcome Requirements may utilize alternative or innovative approaches to meet Core Requirements.

‡Outcome Requirements: Statements that specify expected measurable or observable attributes (knowledge, abilities, skills, or attitudes) of fellows at key stages of their graduate medical education.

Adnexa 1.

Minimum numbers of laparoscopic procedures every year:

General surgery: minimum number of total 50 cases per year in the following:

- Laparoscopy inguinal hernia repair
- Laparoscopy ventral/incisional/umbilical hernia repair
- Laparoscopy cholecystectomy

Colorectal: **minimum number of 10 cases per year of one or more of the following:**

- Laparoscopy colectomy
- Laparoscopy anterior resection/APR

Foregut and/or Bariatric minimum number of 20 cases per year of one or more of the following:

- Hiatal hernia and fundoplication
- Gastric resection
- Bariatric surgery

Urology procedures: minimum number of 25 cases per year of two of the following:

- Doesn't require to have experience in laparoscopy however should have minimum number of open procedures in one year:
    - radical prostatectomy
    - radical nephrectomy/partial nephrectomy/pyeloplasty/re-implantation of ureters

Laparoscopic Gynaecology: minimum numbers of 30 procedures every year in two or more of the following:

- Laparoscopic assisted total hysterectomy.
- Laparoscopic assisted ovarian cystectomy.
- Laparoscopic assisted oophorectomy.
- Laparoscopic assisted excision, removal of endometriosis
- Laparoscopic assisted uterine myomectomy.
- Laparoscopic assisted tubal reconstruction (re-anastomosis)
- Laparoscopic assisted vaginal vault suspension.
- Laparoscopic assisted sacro-colpopexy.
- Laparoscopic assisted caesarean scar niche repair

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