I. GENERAL REQUIREMENTS

A. INTRODUCTION

1. Subspecialty fellowship training programs must be designed to ensure the education and training of physicians who can improve the health care of women and provide leadership for the specialties and the respective subspecialties of obstetrics and gynecology and urology. Each program must have facilities and faculty sufficient to provide its fellows with the requisite investigative and scholarly skills to prepare candidates for a career in academic medicine, in addition to the clinical requirements. A subspecialty program must have special facilities, services, and personnel. Program faculty of such programs also must provide opportunities for fellows to gain, in graduated fashion, increasing knowledge, skills, and responsibility in the subspecialty field sufficient to permit them to function as independent consultants.

2. Within an institution, the activities of the subspecialty fellows and residents in obstetrics and gynecology and urology must be clearly and separately identified. Subspecialty programs and the residency program must complement and enrich one another and must not exist in competition with each other.

B. FELLOWS

1. Fellows must be enrolled full-time for the minimum requirement of the program. A fellow beginning a program must have satisfactorily completed an obstetrics and gynecology or urology residency that is accredited by the American Council for Graduate Medical Education (ACGME), or the Council of the Royal College of
Physicians and Surgeons of Canada (CRCPSC) and have acquired basic knowledge and skills in obstetrics and gynecology or urology.

2. A candidate entering an approved subspecialty fellowship must make application to The American Board of Obstetrics and Gynecology, Inc. or The American Board of Urology, Inc. at least ninety (90) days prior to starting the fellowship using the form provided by the respective Board.

3. When, and if, certification is offered, and after a suitable period of “grandfathering”, eligible candidates will be accepted for the written examination only if they have been registered with The American Board of Obstetrics and Gynecology, Inc. or The American Board of Urology, Inc. throughout the period of fellowship training, have satisfactorily completed all but the last two (2) months of their training program and provide documentation of satisfactory completion of the two required graduate courses. The certification process for all candidates will be identical.

4. When, and if, certification is offered, and after a suitable period of “grandfathering”, eligible candidates must have passed both the written and oral examinations for certification in Obstetrics and Gynecology by The American Board of Obstetrics and Gynecology or in Urology, by The American Board of Urology. It is recommended that contact with the broad aspects of obstetrics and gynecology or urology be continued throughout the fellowship, including such mechanisms as participation in lectures, conferences, or night and weekend call. No more than 10% of the fellow's time, however, may be spent performing duties unrelated to the subspecialty.

C. PROGRAMS

1. Institutions must apply for approval of a fellowship program which meets the jointly sponsored American Board of Obstetrics and Gynecology and the American Board of Urology (ABOG-ABU) requirements. Urology fellows must complete two (2) years of fellowship training. This must include one year of research. Obstetrics and Gynecology fellows must complete three (3) years of fellowship training. This must include one year of research.

2. In order to be approved, every subspecialty program must have a written statement of the educational objectives for the fellows in that program. Examples of such objectives are set forth in the Guide to Learning Female Pelvic Medicine and Reconstructive Surgery.
3. To establish a new fellowship program, an application and a site survey must be completed before approval may be given. The application must be signed by the fellowship program director, division director (if other than the program director), the chair of the department of obstetrics and gynecology or urology, and comparable authorities from each additional participating institution or facility. The application must be made on a current form obtained from the office of The American Board of Obstetrics and Gynecology, Inc. or The American Board of Urology, Inc., and the form must be submitted at least one year in advance of the proposed start of the new program.

4. Approved programs will be reviewed periodically, but not less frequently than every five years. Review for continued approval requires a new application and an on-site survey. The deadline date for the reapplication and the date for the program survey will be sent to the program director at least 90 days in advance. Notification of action by the ABOG-ABU subspecialty committee will include an anticipated duration of approval; however, based on information provided to the committee, an earlier survey may be scheduled. If there are any significant changes in the program (change in the number of fellowship positions, program director, division director, key faculty members, patient volumes and procedures, closure of major research programs, or changes in clinical sites), the Board must be notified within 60 days of the change. Such changes may require submission of a new application and review. Any temporary increase in the number of fellows requires prior written approval by the division. Any permanent change in the number of fellows requires prior written approval by the ABOG-ABU committee. Any permanent change in the number of fellows requires prior written approval by the ABOG-ABU committee, and this action may require a new application for approval.

5. Programs with no active fellows will not be reviewed. Moreover, accreditation for such programs will be withdrawn automatically if no ACGME or CRCPSC graduate fellows have been enrolled from the program for three consecutive years.

6. Every program is required to submit an annual fee and a report which includes a list of current faculty and enrolled fellows. If the fee and report are not received within 30 days of the due date, accreditation for the program will be withdrawn. These notices and reports may serve as the basis for modification of the date of required reapplication and review. If review of a program requires a specialist site visit, the travel expenses and per diem of the site visitors must be paid by the institution having the site visit.
7. A program will be approved for a specific number of fellows at each level. Any individual in an institution assigned to a position in a fellowship who has clinical or research duties similar to fellows must be included in the reports of the number of fellows for that institution, and this number shall not exceed the approved number without specific prior written approval from the ABOG-ABU committee; however, as long as the total number of fellows approved for a specific program does not change, a program director may change the compliment of fellows by one (1) in any year. The minimum number of fellows in a program requires consideration. Fellowship programs with a planned complement of only one fellow in total, may not sustain the critical mass necessary to keep the program vital. There must be the potential for development into a program with at least one fellow per year at each level. The education of fellows must permit progressively greater clinical responsibility and must not vary significantly from one fellow to another in the same program without prior written approval of the jointly sponsored ABOG-ABU subspecialty committee.

8. Performance of a fellowship program is evaluated on the basis of (a) the performance of the fellows on the written and oral certification examinations when and if given by the jointly sponsored ABOG-ABU committee, (b) completion of a thesis by each fellow, and (c) the continued academic productivity of the current faculty members. To this end, there must be evidence that the fellowship program has on-going strong scholarly activity and productivity in clinical and laboratory research. Such evidence must be provided in each year's Annual Report by listing the publications and presentations by faculty and fellows at regional, national or international scientific meetings.

9. **Research Training.** Graduate education programs must be designed to provide research experience for the fellow while satisfying the basic training objectives outlined in the curriculum. A detailed curriculum that describes both the clinical and research training will require approval by the jointly sponsored ABOG-ABU committee prior to implementation. The overall research goals and objectives must be defined in the institutional application which can be obtained by requesting such an application form from the Board office.

These must include:

a. the opportunity for structured basic laboratory and/or clinical research, and the development of additional clinical skills;
b. enhancement of the fellow's understanding of the latest scientific techniques and encouragement of interaction with other scientists;
c. promotion of the fellow's academic contributions to the subspecialty;
d. enhancement of the opportunities for fellows to obtain research funding and academic positions; and
e. furthering the ability of the fellow to be an independent investigator.

During a research block rotation, no more than 10% of a fellow’s time can be devoted to non-research clinical activities. Additionally, a specific faculty member (mentor) must be assigned or chosen by a fellow to direct the fellow’s research efforts.

The jointly sponsored ABOG-ABU committee encourages the combination of fellowships with graduate degrees, such as a Masters of Public Health, or a fellowship with a focused interest in genetics, infectious disease, etc. The design and implementation of these programs, however, must be approved in advance by the ABOG-ABU committee.

Fellows may remain in their institution for longer periods of time to pursue additional research. This does not require ABOG-ABU committee approval; however, the committee must be notified of this decision. This option must not detract from the experience of fellows in the core program.

D. PROGRAM DIRECTOR

1. The program director must have:
   a. been certified in their subspecialty (except for Female Pelvic Medicine and Reconstructive Surgery)
   b. a minimum of five years’ experience after completion of fellowship training,
   c. evidence of scholarly accomplishments,
   d. demonstrated evidence of continued academic productivity such as publications in refereed journals, receipt of national or international honors, and membership and participation in scientific societies, national committees, editorial boards, etc.,
   e. a full-time faculty appointment or be "geographically" full-time in the primary institution offering the fellowship program.
   f. direct responsibility for the appropriate education of fellows enrolled in the program and must be actively engaged in the care of patients in the subspecialty.

2. The program director is responsible for ensuring that each fellow in the program completes an application for registration in that fellowship. The program director also is responsible for assuring that each fellow in the program is actively pursuing a research program which will result in the completion of a thesis which may be utilized in the certification process, and that the fellow is assigned or selects a research mentor. The program director and division faculty are responsible for the written evaluation of the fellows progress at no less than a six-month interval.
3. The program director must file an Annual Report with the ABOG-ABU committee. The forms and dates for submission may be obtained from the respective Board office. The program director must notify the ABOG-ABU committee of any anticipated substantive changes in the fellowship program within 60 days of the changes.

E. OTHER PROGRAM FACULTY

1. In addition to the program director for Female Pelvic Medicine and Reconstructive Surgery, there must be at least one other full-time program faculty member who is certified by either the ABOG or the ABU. There are no Board-certified individuals in Female Pelvic Medicine and Reconstructive Surgery, but such programs must have at least two (2) Board-certified obstetricians and gynecologists or two (2) Board-certified urologists, or a combination of one Board-certified urologist and one Board-certified obstetrician and gynecologist. Programs may continue for a maximum of two years with only one ABOG-certified faculty member, or one ABOG or ABU Board-certified faculty member, and the program will be allowed to continue to enroll fellows. If the director leaves and the only Board-certified faculty members remaining do not meet the requirements for assuming the directorship, a two-year time limit will apply for program continuation. Programs that have only one appropriately certified faculty member or faculty members who are not eligible to be the program director will be placed on probation in the second year. The program is required to notify enrolled fellows and applicants of probationary status which occurs for this, or any, reason. If the program fails to meet the requirements for twenty-four (24) months, accreditation for the program will be withdrawn automatically.

2. Some of the faculty must be actively engaged in clinical and/or basic research. The numbers of clinical and basic science faculty may vary among institutions. It is expected, however, that some program faculty who are clinicians will have special areas of active clinical and/or basic science investigation. Such evidence must be provided in each year’s Annual Report by listing the publications and presentations by faculty and fellows at regional, national, or international meetings. The number of Ph.D. investigators, with primary or secondary involvement in the fellowship program may vary among institutions and may change periodically within institutions depending upon the research interest of the faculty and fellows. The sequence of integration of research and clinical training in fellowship programs may vary among different programs.
F. CURRICULUM

1. Education of fellows must be accomplished through clinical experiences and regularly scheduled teaching conferences, seminars and didactic instruction in both basic science and clinical aspects of the subspecialty. The fellow's schedule and responsibilities must be structured to allow regular attendance at these conferences.

2. **Clinical.** A sufficient number of teaching rounds, including reviews of patient care, must be organized and conducted by qualified faculty at regular intervals. The clinical experience of inpatient and outpatient care must include a sufficient number and variety of cases to fulfill the educational objectives of the *Guide to Learning*. There must be a rotation schedule which conforms to the block diagram in the application submitted for program approval. Outpatient experience is particularly important and must be carefully organized and closely supervised by the clinical faculty. The fellow must be capable of performing all appropriate diagnostic and therapeutic procedures relevant to the clinical practice of the subspecialty. The fellow must play a major role in decisions affecting patient management and participate in a program constructed to allow continuity of patient care. During the course of the educational program, the fellow should be supervised in clinical activities and faculty consultation should be available to the fellow at all times.

3. **Research.** The fellowship program director must provide evidence of strong scholarly activity and productivity by faculty and fellows in clinical and/or laboratory research. Within the fellowship curriculum, there must be time allocated for research objectives. Additionally, time must be reserved for clinical activities, including surgery. Research projects can be developed either within the department or in collaboration with other academic departments.

4. Familiarity and experience in clinical and laboratory research is an important part of fellowship training. The ability to carry out a research plan, to interpret the results, and to demonstrate facility with the scientific method, is critical. The structure of the research program will require a faculty research training director, or mentor, whose role will be different from that of the program director (although this may be the same individual). There must be appropriate supervision by the mentor and sufficient opportunity to develop a research project. The fellow is expected to conceptualize a question or hypothesis and to formulate a strategy to answer the question. This step must be followed by appropriately supervised experiments and statistical analysis as outlined under the thesis instructions (see Addendum A). The portion of each fellow's education devoted to research must ultimately result in a thesis accepted by the jointly sponsored ABOG-ABU
committee. It is expected that each fellow will acquire a thorough knowledge and understanding of the methodologies and analyses used in research protocols that relate to research in their subspecialty. An in-depth understanding of the statistical analysis of research projects is mandatory.

5. There also should be progressive involvement by the fellow in research so that the fellow develops the skills to continue to conduct independent research.

6. **Graduate Courses.** A fellowship program must include two university graduate-level courses, one in quantitative techniques including biostatistics and other areas such as epidemiology and research design and implementation. The second course must be relevant to the specific subspecialty. Both courses must be approved by the jointly sponsored ABOG-ABU committee. If either course is listed in a university catalogue, the description in the catalogue may be submitted for approval. If a course is not listed in a university catalogue, the entire curriculum and the credentials of the instructor must be submitted. These courses must be completed satisfactorily, concluding with an examination and documentation of a passing grade. Attendance at continuing education courses, or short, single-topic courses sponsored by various organizations, is not sufficient to meet the requirement of university graduate-level courses.

7. **Thesis.** All fellows must produce a thesis as first author. The thesis need NOT have been published or accepted for publication. In fact, acceptance of the thesis for publication by a refereed journal does not guarantee acceptance of the thesis by the ABOG-ABU committee. **It is the program director's responsibility to provide the conditions for fulfilling this requirement and to assist the fellow in reaching this objective by the end of the fellowship.** It is required that the fellow actually perform the research (see Addendum A).

G. **FACILITIES**

1. In addition to patient volume and patient diversity, facilities are critical in order to meet the objectives of the educational program. An educational program in Female Pelvic Medicine and Reconstructive Surgery must be affiliated with a medical school and be an integral part of a department of obstetrics and gynecology or urology. This department must also contain an accredited residency program in obstetrics and gynecology or urology. The program must function with the approval, but not necessarily under the direction, of the chairman of the department.

2. A fellowship program may utilize more than one patient facility. If more than one site is used, there must be at least one physician qualified in the subspecialty at
each site, or similarly qualified faculty of the program must be assigned for on-site supervision of fellows during their training at these sites.

3. Assignment of fellows to other institutions or hospitals can be approved on an individual basis. For this to occur, the fellowship program must have a formal agreement with each institution or hospital. Such formal agreements must include stated responsibility of each institution, the anticipated experience of the fellow and the evaluation process which will be used to measure the fellows progress.

4. Operating rooms, labor and delivery and ambulatory care facilities must be available for the care of patients on a regularly scheduled basis and must always be available on an emergency basis for the management of complications. The complexity of care required for these patients makes it necessary that there be available, recovery rooms, intensive care units, blood banks, diagnostic laboratories and imaging services.

5. The medical records systems must be designed so that individual records are readily available for patient care and clinical research. The institution must have a comprehensive medical library. Fellows should have access to computerized literature searches. Such libraries should contain a wide variety of current text books and clinical and basic science journals, including those relevant to the subspecialist.

6. The program must have access to clinical and laboratory research facilities which are adequate in size and appropriately equipped to conduct the research training of the fellows.
II. SPECIAL REQUIREMENTS: FEMALE PELVIC MEDICINE AND RECONSTRUCTIVE SURGERY

A. INTRODUCTION

A specialist in female pelvic medicine and reconstructive surgery is a physician in obstetrics and gynecology or urology who, by virtue of education and training, is prepared to provide consultation and comprehensive management of women with complex benign pelvic conditions, lower urinary tract disorders, and pelvic floor dysfunction. Comprehensive management includes those diagnostic and therapeutic procedures necessary for the total care of the patient with these conditions and complications resulting from them.

B. FELLOWS

By virtue of satisfactory completion of a fellowship program in this discipline, the individual should be a specialist in obstetrics and gynecology or urology capable of functioning independently as a physician defined in Section A. The fellow should be capable of independent scientific inquiry and critical evaluation. Following the completion of the fellowship program, the candidate must be able to function as a consultant to other physicians and is expected to continue to demonstrate dedication to the management of urogynecologic and pelvic floor dysfunction and to academic pursuits.

C. PROGRAM

1. Graduate educational programs should provide fellows with advanced training in the care of women with such disorders. The objectives of such programs are to improve the health care of women by:
   a. elevating standards of education and training relating to female pelvic medicine and reconstructive surgery;
   b. enhancing the recruitment of qualified physicians to this subspecialty and encouraging the development of academicians;
   c. increasing basic science and clinical knowledge regarding complex benign pelvic conditions, lower urinary tract disorders and pelvic floor dysfunction; and
   d. improving the organization, distribution, and cost effectiveness of patient care.

2. It is strongly recommended that obstetrical and gynecological-based fellowships have a designated faculty member who is a urologist, and that urological-based fellowships have a designated faculty member who is a gynecologist.

3. Fellowship programs for a gynecologist must consist of at least 36 months of clinical and research work with a minimum of 18 months of clinical work within the parent program and department. Blocks of time which are devoted exclusively to
basic research to the exclusion of clinical care must be no more than 12 months in duration. Within a fellowship program, the length of fellowship must be the same for each fellow. The remaining six months of fellowship may be tailored to the specific research and clinical goals of the individual fellow.

4. Fellowship programs for a urologist must consist of at least 24 months of clinical and research work with 12 months devoted to clinical training and 12 months devoted to research. Blocks of time which are devoted exclusively to basic research to the exclusion of clinical care should be no more than 12 months in duration.

D. FACULTY

Program Directors who complete their basic Obstetrics and Gynecology or urology residency training program after June, 2005, must have also completed an ABOG - ABU accredited fellowship training program. There must be at least one additional faculty member who has demonstrated contributions to education in female pelvic medicine and reconstructive surgery. Such an individual must be a Board-certified obstetrician gynecologist or a urologist. Consultative services must be available from general surgeons, colo-rectal surgeons, gynecologists, urologists, plastic surgeons, vascular surgeons, geriatricians, gastroenterologists, physical therapists and/or rehabilitation specialists, neurologists, imaging specialists, and pain management specialists.

E. CURRICULUM

The program director should utilize the Guide to Learning in Female Pelvic Medicine and Reconstructive Surgery as the basis for curriculum development and is responsible for ensuring that the terminal objectives are realized by each fellow at the completion of the fellowship.

1. The clinical experience of the fellows must be of sufficient volume and variety to provide an adequate education. Both inpatient and outpatient experiences are important. There must be sufficient diagnostic and operative experience with a variety of procedures to develop the fellow’s skills in complex surgical treatment of any pelvic organ prolapse and other problems of pelvic floor dysfunction which involve any and all gynecological and/or urological conditions. Included in these skills must be the ability to perform urodynamic and pelvic floor testing, cystoscopy, laparoscopy, reconstructive surgery for urinary and fecal incontinence and pelvic organ prolapse in addition to other benign conditions occurring in the female pelvis. Programs will be critically reviewed for educational content and volume of both operative and non-operative management of these disorders.

2. The educational program also must include instruction in the following areas: anatomy, physiology, and pathophysiology of the pelvic floor (including lower
urinary tract, colo-rectal-anal, and vaginal function); diagnostic evaluation of urinary and anal incontinence, pelvic floor dysfunction, and prolapse; behavioral, pharmacological, functional and surgical treatment of urinary and anal incontinence, pelvic floor dysfunction (including micturition and defecation disorders), and pelvic organ prolapse; diagnosis and management of genito-urinary and rectovaginal fistulae, urethral diverticula, injuries to the genitourinary tract, congenital anomalies, and infectious and non-infectious irritative conditions of the lower urinary tract and pelvic floor; and management of genitourinary complications of spinal cord injuries.

3. The educational program must include both the basic science and the clinical aspects of the discipline. The basic science educational program must be based on an organized curriculum which provides a knowledge of clinically-relevant basic science, physiology and microbiology. Fellows must participate in the diagnosis and management of clinically pertinent areas of pathology, infectious disease, geriatric medicine, colo-rectal dysfunction, electrodiagnostic testing, physical therapy, pain management, sexual dysfunction, psychosocial aspects of pelvic floor disorders, general surgery, colon and rectal surgery, vascular surgery, urologic surgery, and plastic surgery.

4. The fellow should have an active role in the residency education program.

5. The fellow must examine and evaluate a sufficient number of women who have received all methods of treatment. The fellow is expected to develop the ability to assess the effects of treatment and to recognize and manage the complications of therapy. The fellow must be able to evaluate the lower urinary tract for abnormalities including neoplasms. Thus, training should include the development of knowledge concerning the appropriate use of urinary tract cytology and biopsy. The population of patients in the follow-up care facility must be sufficient in number for the fellow to become experienced in the continuing follow-up phase of patient care.

6. It is imperative that the trainee have a firm foundation in obstetrics. For urologists enrolled in these ABOG-ABU jointly sponsored fellowships, it is essential that they have an understanding of obstetrical issues that are related to the pathophysiology of female pelvic dysfunction.

7. Case lists and experience logs of each fellow’s hospital experience are required to be kept on forms provided by the Board. In order to maintain program approval, these must be submitted twice by each fellow, once within one month of completing the first 12 months of training and again within one month of
completing the fellowship. The Program Director must ensure that case lists and experience logs are submitted each July.

8. A designated segment of time within the educational program must be devoted to research. Trainees will be expected to gain a thorough understanding of the methodologies necessary to conduct a scientific investigation. This component of the program requires that the trainee design a research project, test the results statistically, and interpret them critically. Under appropriate supervision, the trainee is expected to produce a thesis which is an original clinical or basic research project whose results may be worthy of publication in a peer-reviewed journal.

F. FACILITIES

Appropriate education can be provided only in institutions which have appropriate facilities and in which an educational environment is maintained. There must be well-equipped diagnostic/therapeutic facilities available that will ensure the fulfillment of all educational requirements related to the fellowship program. This should include laparoscopic, endoscopic, and urogynecologic and pelvic floor testing equipment. Sufficient inpatient and outpatient facilities must be available, preferably in one geographic area, to accommodate the number of patients necessary for appropriate clinical training of all the fellows in the program. Operating rooms must be available for the care of relevant patients on a regularly scheduled basis, and operating rooms must always be available on an emergency basis for the management of complications. Consultation must be readily available from all major clinical specialties (see II.D. above).
ADDENDUM A: THESIS

All trainees in ABOG-ABU jointly sponsored fellowships are required to complete a thesis (see II.E.8).

1. The thesis must meet the instructions for authors for any one of the following journals: (1) *American Journal of Obstetrics and Gynecology*; (2) *The New England Journal of Medicine*; (3) *Fertility and Sterility*; (4) *Obstetrics and Gynecology*, (5) *Journal of Urology*, (6) *Urology*, or (7) *Neurourology and Urodynamics*. The format chosen must be clearly identified on the cover page of the manuscript, and as a rule, the total pages of the manuscript should not exceed thirty (30). The thesis must be submitted in type-written form, single-spaced, double-sided on standard 8 x 11 paper *(THIS INCLUDES PUBLISHED MANUSCRIPTS; REPRINTS ARE NOT ACCEPTABLE.*). The applicant must be the sole or principal investigator and should be the only author listed on the manuscript (do not list co-authors, institutions, or acknowledgments). No more than one such article is to be submitted and pages must be numbered.

2. The subject should be clearly in the area of gynecologic oncology, or maternal-fetal medicine, reproductive endocrinology and infertility or female pelvic dysfuction.

3. The thesis must be on clinical or basic research and NOT a review of work by others. The work must have been performed during or subsequent to the fellowship period.

4. The thesis must be a scholarly effort that most often should consist of:

   a. an abstract (200-300 word concise statement of the work performed);

   b. an introduction outlining the pertinent background and reasons for doing the work, as well as, when appropriate, a testable hypothesis and a rationale for the hypothesis;

   c. a methodology section, including quality control of the methods used (for assays, this should also include precision, accuracy, sensitivity, and specificity) and a well-defined control group, as well as a reasonable number of observations;

   d. an analysis of results with valid statistical methods;

   e. pertinent discussion and significance of the study including an appropriate review of the literature;

   f. a summary; and
g. references.

5. Book chapters, clinical case reports and descriptive series are not acceptable.

6. During the oral examination, the candidate will be asked any one or all of the following questions; however, additional questions may be asked which are not listed in this outline.

a. Hypothesis

1) What were the study objectives?
2) What was the population studied?
3) What was the population to which the investigators intended to apply their findings?

b. Design of the investigation

1) Was the study an experiment, case control study, randomized clinical trial, planned observations, or a retrospective analysis of records?
2) Were there possible sources of sample selection bias?
3) How comparable was the control group?
4) What was the statistical power of the study?

c. Observations

1) Were there clear definitions of the terms used (i.e., diagnostic criteria, inclusion criteria, measurements made and outcome variables)?
2) Were the observations reliable and reproducible?
3) What were the sensitivity, specificity and predictive values of the methods?

d. Presentation of findings

1) Were the findings presented clearly, objectively, and in sufficient detail?
2) Were the findings internally consistent (i.e., did the numbers add up properly and could the different tables be reconciled, etc. )?

e. Analysis of the results

1) Was the data worthy of statistical analysis? If so, were the methods of analysis appropriate to the source and nature of the data?
2) Were the analyses correctly performed and interpreted?
3) Were there sufficient analyses to ascertain whether "significant differences" might, in fact, have been due to a lack of comparability of the groups (i.e., age, sex, clinical characteristics, or in other relevant variables)?
4) Was design of the study appropriate for solving the stated problems?
5) Was there an improper use of statistical techniques?
6) Was there mention of the type of test used or the significance level?
7) Was there use of measured sensitivity without specificity?

f. Conclusions or summary
   1) Which conclusions were justified by the findings?
   2) Were the conclusions relevant to the hypothesis?

g. Redesign the study
   If the study could be improved, how would you revise the experimental design in order to provide reliable and valid information relevant to the questions under study?

h. Breadth and depth of subject matter
   Each candidate may be asked about references cited in their thesis. The candidate also will be judged based upon their knowledge of the literature related to the subject of their thesis.