Considering a Subspecialty in ObGyn?

Advance your Skills and Knowledge!

Subspecialty Training Programs in Obstetrics and Gynaecology

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INTRODUCTION

A subspecialty career can be very rewarding. With advanced skills and knowledge you will be seen as an expert, a resource, and a leader by your colleagues.

Subspecialization not only provides advanced knowledge and skills in acute quality care but also promotes continuous growth and improvement in the field of obstetrics and gynaecology.

A 2006 survey of 16 Canadian Universities clinical Chairs indicated a major need for subspecialists over the next 5 years as follows:

Survey from academic Chairs on current and future needs for subspecialists

(n=16; 100% response rate)

Specialty	Year				
	2005		2006–10		2011
	Filled	Unfilled	Needed	Graduates Needed	Projected Unfilled
MFM	91	7	+31	38	17
REI	56	4	+17	21	7
GO	51	7	+21	28	14
URO	37	3	+15	18	?
PED	21	2	+10	12	?

In other words, by 2011, it is predicted that with the current enrolment within the Royal College accredited subspecialties training programs, there will be a net deficit of 17 maternal fetal medicine, 7 reproductive endocrinology and infertility and 14 gynaecologic oncology subspecialists in Canada resulting in

several million women without access to tertiary care subspecialists. Since urogynaecology and paediatric and adolescent gynaecology are not Royal College accredited subspecialties, it is not possible to project the number of positions unfilled by 2011.

At present, 3 subspecialties are recognized by the Royal College of Physicians and Surgeons of Canada for residency training including Maternal-Fetal Medicine, Reproductive Endocrinology and Infertility, and Gynaecologic Oncology. These 3 subspecialties have a status of "Accredited with Examination". In other words, a written examination administered by the Royal College will need to be completed successfully in order for the trainee to receive the official certificate as a subspecialist.

Three other subspecialties including Paediatric and Adolescent Gynaecology, Urogynaecology and Advanced Gynaecologic Endoscopy have training programs available in Canada but are not yet recognized by the Royal College. They are often referred to as clinical fellowships. The local university will deliver a certificate of successful completion but not the Royal College of Physicians and Surgeons of Canada.

This booklet is intended to provide you with a brief introduction to a number of subspecialty careers in obstetrics and gynaecology. The numbers provided reflect the status at the time of publication.

If you have an interest in inquiring about the availability of a specific subspecialty and want to ensure the information is up to date, you should consult the companion booklet prepared by the SOGC Junior Members Committee entitled "Guide to Fellowship & Postgraduate Training Opportunities".

GYNAECOLOGIC ONCOLOGY

DESCRIPTION

Gynaecologic Oncology is a unique subspecialty involved in the care of women with gynaecological cancers. It combines expertise in women's health, medicine, surgery and oncology. It is one of the few areas in medicine in which one can meet a patient at diagnosis and manage the care throughout the course of the disease. This allows for a very special bond with patients and families. Although sometimes emotionally challenging, the many successful outcomes are very rewarding.

Gynaecologic Oncologists spend a large proportion of their training in the operating room acquiring the skills necessary to manage gynaecological cancers. Most physicians describe a desire for more proficient surgical skills as one of the driving forces behind their career choices. In addition, Gynaecologic Oncology training in Canada requires the student to become an expert in adjuvant treatments of cancer including chemotherapy and radiotherapy. Although center specific, most Gynaecologic Oncologists administer and manage their own patients through chemotherapy. Although radiotherapy is administered and managed by Radiation Oncologists, Gynaecologic Oncologists work very closely with the entire cancer team including Radiation Oncologists as well as other physicians such as

palliative care physicians. In provinces where adjuvant chemotherapy is administered by Medical Oncologists, the Gynaecologic Oncologists and Medical Oncologists work as a team in devising a patient care plan that will offer the best survival advantage and greatest quality of life.

In addition to the clinical work, many Gynaecologic Oncologists also have faculty positions within their respective medical schools. As such, teaching and research play a very important part of this subspecialty. Throughout each day of the week, a physician could be involved in a different aspect of his or her career. This is key in keeping one motivated and stimulated. Clinical clerks, residents, as well as fellows in training, are all vital members of the clinical management team and teaching becomes a standard part of the daily routine.

As a member of the Society of Gynaecologic Oncologists of Canada (GOC), one feels very much a part of a pioneering force in women's research. Despite our small numbers, we have made amazing strides in women's health research. From coast to coast we collaborate on research projects pooling our experiences and patient outcomes. It is a small but highly driven and supportive network.

At most Canadian centers, Gynaecologic Oncology is financially lucrative and allows for a very reasonable lifestyle, particularly for physicians interested in focusing more time on family. Most would describe their careers as demanding yet a highly rewarding and satisfying career choice.

PATIENTS AND PROCEDURES

A specialist in Gynaecologic Oncology is involved in the care of any woman with a gynaecologic malignancy. Consultations are usually made through a general Obstetrician/Gynaecologist, however referrals could come from family physicians as well as other health professionals. Examples of such types of patients may include, but are certainly not limited to, a young woman with cervical cancer, a women with an ovarian or uterine cancer or possibly a vulvar or vaginal malignancy. A Gynaecologic Oncologist may also be requested to provide surgical expertise with a challenging benign pelvic condition such as stage IV endometriosis. The Gynaecologic Oncologist is a valued part of the women's health department and many hold very prestigious

administrative positions both locally, nationally and internationally.

EDUCATIONAL REQUIREMENTS

In Canada at present, Gynaecologic Oncologists complete an Obstetrics and Gynaecology residency program and then move into a two or three year fellowship program. This consists of two years of surgical and clinical work and usually one year of research. Research opportunities are individualized and the programs range from basic medical science, translational research, epidemiology and education. At the end of the subspecialty training, a graduating Gynaecologic Oncologist in Canada is a leader in women's cancer research.

Gynaecologic Oncology is recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. Trainees will be required to pass a clinical exam upon completion of training to receive their certificate.

EMPLOYMENT OPPORTUNITIES

There are now 7 Royal College approved programs in Canada. A recent poll of the program directors of 16 Canadian universities reports 7 unfilled Gynaecologic Oncology training positions across the country. We anticipate many more employment opportunities over the next 10-15 years with the aging population.

The Society of Gynaecologic Oncologists of Canada (GOC) in association with the National Ovarian Cancer Society (NOCA) have now established an elective grant for interested Obstetric and Gynaecology residents. This is a fantastic opportunity for residents to experience this subspecialty first-hand and can easily be coordinated through GOC.

MATERNAL-FETAL MEDICINE

DESCRIPTION

Maternal-Fetal Medicine (MFM) involves the prevention, diagnosis and treatment of those conditions responsible for morbidity and mortality of the mother, fetus and early newborn. MFM is a challenging field, as there is a rapidly expanding body of knowledge regarding maternal health and disease, and a continuing introduction of new technologic methods for maternal and fetal assessment. A direct result of these evolving processes is a need for specialists in Maternal-Fetal Medicine with educational and research interests, administrative ability and special training in the identification and management of high risk obstetrical problems. Given the increasing societal demands and expectations for both mother and child, this field will continue to modify the nature of obstetrical care. Specialists in Maternal-Fetal Medicine are viewed primarily as consultants to the practising obstetrician and other health care providers. Although for the most part they limit their practice to referred high risk obstetrical patients in a tertiary health care institution, there are increasing needs to support general obstetricians and gynaecologists in regional secondary institutions. Maternal-Fetal Medicine specialists often function as regional consultants in matters of organization, standards and education in the broad field of maternal and fetal health.

PATIENTS AND PROCEDURES

Patients undergoing diagnostic or therapeutic procedures during pregnancy, such as:

- Comprehensive ultrasound
- Genetic testing
- Fetal surgery or treatment

Care and surveillance of women with significant medical or surgical disorders, examples of which include:

- Heart disease
- Complicated hypertensive disorders
- Diabetes or other endocrine disorders
- Renal or gastrointestinal disease
- Infectious diseases

Care of healthy women whose pregnancy is at markedly increased risk for adverse outcome, examples of which include:

- Fetus with structural abnormalities
- Monoamniotic twins, triplets or higher order multiples
- Recurrent pre-term labour and delivery
- Preterm rupture of membranes
- Recurrent pregnancy loss
- Severe fetal growth restriction

The scope of clinical opportunities for the Maternal-Fetal Medicine specialist is vast and, although challenging, provides immense satisfaction and professional rewards.

EDUCATIONAL REQUIREMENTS

A Maternal-Fetal Medicine specialist is an individual who has completed a two year Maternal-Fetal Medicine subspecialty training program after five years in an Obstetrics and Gynaecology residency program. Fellowship training provides additional education and practical experience to gain competence in various obstetrical, medical, and surgical complications of pregnancy. It typically includes the equivalent of 6 months dedicated to obstetrical ultrasound and prenatal procedures, 6 months of clinical maternal-fetal medicine and 6 months of research. The rest of the program varies from institution to institution and may include rotations such as neonatology and medical genetics or elective time.

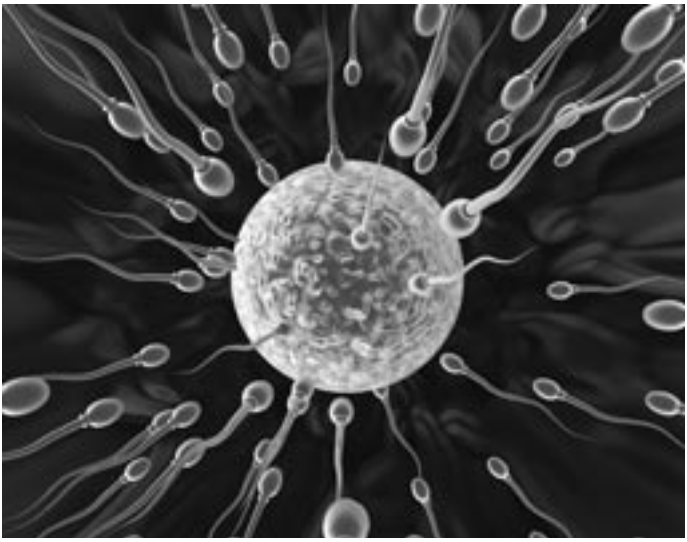
MFM is recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. Trainees will be required to pass a written exam upon completion of training to receive their certificate.

EMPLOYMENT OPPORTUNITIES

In Canada, there are currently 8 Royal College accredited MFM residency training programs, however only 2-3 residents choose to enroll every year. The demand for MFM specialists across the country exceeds the supply.

Advanced prenatal screening is an increasing need in our population, and a larger proportion of pregnant women may require prenatal care from MFM specialists. The combination of (1) increasing number of specialists providing obstetrical care reaching retirement age, (2) less graduating residents in MFM than needed, (3) significantly changing maternal demographics leading to higher proportions of high risk pregnancies and (4) increasing public expectations regarding the highest possible standard of obstetrical care, leads to an increasing need for MFM specialists in teaching centers. A recent survey sponsored by the Association of Professors in Obstetrics and Gynaecology (APOG) indicates that there will be a need for 31 MFM specialists within the 16 academic centers across Canada in the next 5 years. Therefore, there are ample job opportunities in the field of Maternal-Fetal Medicine!

It is recognized that many obstetricians-gynaecologists are also qualified by training and experience to manage complicated pregnancies. Maternal-Fetal Medicine specialists are complementary to obstetricians in providing consultations, co-management, or direct care for complicated patients both before (through pre-conceptional counselling) and during pregnancy. Maternal-Fetal Medicine specialists also function in collaboration with family physicians and registered midwives. The relationship between the primary care provider and the Maternal-Fetal Medicine specialist will depend upon the acuity of the condition and local circumstances.



REPRODUCTIVE ENDOCRINOLOGY AND INFERTILITY

DESCRIPTION

Reproductive Endocrinology and Infertility (REI) is a subspecialty of Obstetrics and Gynaecology that focuses on problems of endocrinology related to reproduction and also to infertility. The specialty is more focused on the female aspects of reproduction but knowledge of male reproductive issues relating to infertility are also objectives for the subspecialty. The subspecialty has great variety in its services including paediatric endocrinology, male infertility, menopause, and treatment of fertility in cancer patients. Surgical and technical aspects of the subspecialty include surgery for congenital reproductive anomalies, fertility promoting minimally invasive surgery and assisted reproductive technologies such as in vitro fertilization. It is a progressive profession with new research developments continually enhancing the treatment of gynaecologic problems such as endometriosis, ovarian tissue cryopreservation, freezing, oocytecryopreservation for cancer patients, stem cell programs and infertility.

Specialists in REI are viewed mainly as consultants to general obstetricians-gynaecologists and other health care providers including family physicians. Employment

opportunities include positions in tertiary care settings such as universities but many are in private practice, most commonly in private IVF centers. Subspecialists in REI in private IVF settings often also have cross-appointments with nearby universities.

PATIENTS AND PROCEDURES

Training includes exposure to Paediatric Gynaecology, Male Infertility, Menopause, Medical Endocrinology, Osteoporosis, In vitro fertilization and other infertility treatments, ultrasound and fertility promoting surgery.

EDUCATIONAL REQUIREMENTS

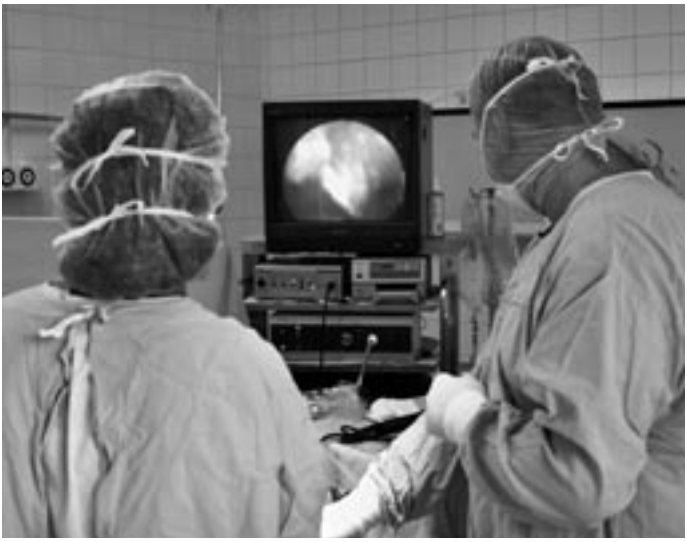
Medical school training is 3-4 years long, followed by 5 years of additional training in Obstetrics and Gynaecology. Subspecialty residency training in REI in Canada is 2 years in duration. Most programs take 1-2 fellows per year. Applications occur in the early portion of the final year of residency. All programs are contacted directly.

All trainees aiming to complete the REI examinations must also be certified as a general Obstetrician-Gynaecologist through the American College first. For Canadian REI programs, fellows are required to be certified by the Royal College of Surgeons of Canada in general Obstetrics and Gynaecology.

REI is recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. Trainees will be required to pass a clinical exam upon completion of training to receive their certificate.

EMPLOYMENT OPPORTUNITIES

Employment opportunities are plentiful in REI. Most are in the private setting but each university has REI specialists as part of their department even if they do not have a fellowship training program. Many REI fellows choose to open up their own private IVF practice.



MINIMALLY INVASIVE GYNAECOLOGY

DESCRIPTION

The practice of surgical gynaecology is increasingly moving towards a more minimally invasive approach to the treatment of both benign and malignant conditions. Patient demand, increasingly virulent nosocomial infections and chronic bed shortages have made long in-hospital post-operative recovery times obsolete. The aging population has and will continue to create a demand for the gynaecologist skilled in vaginal and laparoscopic repair of prolapse both with and without the use of mesh. Advanced laparoscopic skill is also required in the management of advanced endometriosis, gynaecologic oncology, the morbidly obese patient, prolapse and tubal reanastomosis. Minimally invasive techniques allow for procedures that have traditionally been done with laparotomy to be completed by a laparoscopic, hysteroscopic or vaginal approach.

Fellowship training in Minimally Invasive Gynaecology (MIG) is becoming increasingly popular in Canada. Many residents find it difficult to acquire the skills to complete advanced laparoscopic and vaginal procedures in light of the other surgical and academic objectives of residency.

PATIENTS AND PROCEDURES

The fellowship year in MIG allows for a more directed focus on the methods and technology involved in converting a number of procedures previously done as laparotomies to the less invasive vaginal, laparoscopic or hysteroscopic approach. Surgeries can include laparoscopic sacral colpopexy, presacral neurectomy, myomectomy, excision of stage 3 and 4 endometriosis (including bowel related disease), subtotal and total laparoscopic hysterectomy, pelvic lymphadenectomy, tubal repair and reanastomosis, repair of bowel and bladder injuries. Hysteroscopic procedures include sterilization, resection of large intracavitary fibroids, and mastery of a number of global ablation techniques.

EDUCATIONAL REQUIREMENTS

Most Canadian MIG fellowships are one year in length. They require completion of medical school followed by 5 years of residency training in an Obstetrics and Gynaecology program.

Minimally Invasive Gynaecology is not recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. A certificate will be provided at the end of the training by the individual university.

EMPLOYMENT OPPORTUNITIES

There are many positions available across Canada for gynaecologists with additional training in advanced MIG procedures. They range from surgeons in private practice providing both Obstetrics and Gynaecology services to university based faculty who are involved in research and teaching of MIG surgery.

PAEDIATRIC AND ADOLESCENT GYNAECOLOGY

DESCRIPTION

Paediatric and Adolescent Gynaecology and Obstetrics, often abbreviated PAG, is a subspecialty that combines facets of many areas of reproductive medicine and surgery, with the care of infants, children and adolescents.

Currently, there are only a few fellowship programs across North American in Paediatric and Adolescent Gynaecology. Fellowship programs can differ in the nature and complexity of the surgical training offered. For example, in Canada, the Hospital for Sick Children (HSC) at the University of Toronto is the only funded program with sufficient surgical volume for proficiency in complex congenital anomalies and rare malignancies while the "C.A.R.E" Fellowship at Queen's University (Contraception Advice Research & Education) strives to groom national experts in family planning and continuing health education. The Fellowship program at the Université de Montreal (Sainte-Justine) accepts candidates fluent in French. All programs offer training in common Mullerian Anomalies, Adolescent Obstetrics and Office PAG. In addition, some training programs offer the opportunity to achieve a Masters Degree in

Public Health while others help develop skills as a public speaker and expertise in continuing medical education. Integral to the fellowship training is the preparation of the gynaecologist to care for children and adolescents recognizing their physiology and the developmental stages that separate them from adults.

Most paediatric and adolescent gynaecologists maintain an adult practice within obstetrics and gynaecology while one or two days spent caring for children and teens provides variety to their workweek. Paediatric Gynaecologists often practice in large academic and tertiary referral centres with sufficient referral base populations. However, community paediatric gynaecologists are an invaluable resource.

PAG is a subspecialty that collaborates extensively with other specialties for both the care of patients as well as in research and education. These specialties include: paediatrics, paediatric surgery, urology, endocrinology, hematology/oncology, dermatology and adolescent medicine.

PATIENTS AND PROCEDURES

Paediatric and adolescent gynaecologists manage common and uncommon paediatric and adolescent gynaecology disorders.

Table 1

Clinical Conditions Cared for by the Paediatric & Adolescent OB/GYN

Abdominal/pelvic pain	Gonadal dysgenesis
Abnormal genital bleeding	Hirsutism
Adolescent Obstetrics	Labial agglutination
Adolescent Sexuality	Menorrhagia
Ambiguous genitalia	Pelvic or abdominal mass
Amenorrhea	Paediatric and Adolescent Gynaecologic Malignancies
Congenital anomalies of the reproductive tract	Precocious puberty
Contraception	Prepubertal vulvovaginitis
Delayed puberty	Sexual abuse
Dysmenorrhea	Sexually transmitted diseases
Endometriosis	Vulvar Disorders
Gender identity disorders	Substance Abuse
Genital injuries	

The surgical aspects of the subspecialty involve the management of unique, interesting and rare cases as well as common diagnostic procedures (Table 2).

Table 2
The Surgical Procedures (in the Child or Adolescent)
• Examination Under Anaesthesia +/- Vaginoscopy, Cystoscopy
• Surgical Reconstruction of Congenital Reproductive Anomalies
• Repair of Genital Trauma Injuries
• Surgical Treatment of Genital tract malignancies
• Diagnostic & Operative (laparoscopic) management of ◦ benign ovarian cysts, ◦ endometriosis, ◦ gonadectomy, ◦ ectopic pregnancy

EDUCATIONAL REQUIREMENTS

Physicians who practice paediatric and adolescent gynaecology generally complete 1 to 2 years of additional training within the subspecialty following completion of an obstetrics and gynaecology residency program, although some practice in this subspecialty having completed a Paediatrics residency and often an Adolescent Medicine fellowship.

Paediatric and adolescent gynaecology is not recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. A certificate will be provided at the end of the training by the individual university.

EMPLOYMENT OPPORTUNITIES

Paediatric and Adolescent Gynaecology as a subspecialty is currently gaining increasing recognition both nationally and internationally.

A survey sponsored by APOG from 16 academic universities in Canada assessed both the current number of paediatric gynaecologists within those centers as well as the needs within the next 5 years. Across the responding universities, there were 20 paediatric gynaecologists. Within the next 5 years, 9 to 10 additional paediatric gynaecologists will be required across Canada.

Fellowship training tends to be an asset when searching for an academic appointment but many non-university centres would actively recruit an obstetrician gynaecologist with this area of interest and/or expertise.

UROGYNAECOLOGY

DESCRIPTION

A urogynaecologist is an Obstetrician/Gynaecologist who has specialized in the care of women with Pelvic Floor Dysfunction. Urogynaecologists have completed medical school and a five-year residency in Obstetrics and Gynaecology. They become specialists with additional training and experience in the evaluation and treatment of conditions that affect the female pelvic organs, and the muscles and connective tissue that support the organs. The additional training focuses on the surgical and non-surgical treatment of non-cancerous gynaecologic problems. It is *not* a normal part of a woman's aging process to develop uncomfortable, troublesome symptoms of incontinence or prolapse. Women need not 'learn to live with it.' Effective help is available through the services of a Urogynaecologist.

Urogynaecologists become experts in treating problems due to Pelvic Floor Dysfunction and their symptoms for example including urinary and fecal incontinence, pelvic prolapsed, emptying disorders, pelvic (or bladder) pain, and overactive bladder.

A Urogynaecologist can recommend a variety of therapies to cure or relieve symptoms of prolapse,

urinary or fecal incontinence, or other pelvic floor dysfunction symptoms. He or she may advise conservative (non-surgical) or surgical therapy depending on the patient's wishes, the severity of her condition and her general health. Conservative options include medications, pelvic exercises, behavioural and/or dietary modifications and vaginal devices (also called *pessaries*). Biofeedback and Electric Stimulation are two newer treatment modalities that a Urogynaecologist may recommend. Safe and effective surgical procedures are also utilized by the Urogynaecologist to treat incontinence and prolapse.

It is recognized that many obstetricians-gynaecologists are also qualified by training and experience to manage pelvic floor dysfunction and genital prolapse. Urogynaecology specialists are complementary to obstetricians in providing consultations, co-management, or direct care for a complicated patient.

PATIENTS AND PROCEDURES

What are examples of types of patients seen by Urogynaecology specialists?

1. *Incontinence*: Loss of bladder or bowel control, leakage of urine or feces.
2. *Prolapse*: Descent of pelvic organs; a bulge and/or pressure; 'dropped uterus, bladder, vagina or rectum.'
3. *Emptying Disorders*: difficulty urinating or moving bowels.
4. *Pelvic (or Bladder) Pain*: Discomfort, burning or other uncomfortable pelvic symptoms, including bladder or urethral pain.
5. *Overactive Bladder*: Frequent need to void, bladder pressure, urgency, urgency incontinence or difficulty holding back a full bladder.

Patients undergoing diagnostic or therapeutic procedures such as:

- Comprehensive pelvic ultrasound
- Urodynamic studies
- Cystoscopy
- Recurrent genital prolapse and incontinence
- Genital fistulae
- Complicated reconstructive pelvic surgery

Therefore the scope of clinical opportunities for the Urogynaecology specialist is vast and, although challenging, provides immense satisfaction and professional rewards.

EDUCATIONAL REQUIREMENTS

Medical school training takes 4 years in addition to another 5 years to educate a student to become a fully qualified obstetrician-gynaecologist in Canada. Another 2-3 years is necessary to train a Urogynaecology specialist. Therefore, a total of 11-12 years is necessary for the formation of a Urogynaecology specialist.

Urogynaecology is not recognized by the Royal College of Physicians and Surgeons of Canada as an accredited subspecialty with examination. A certificate will be provided at the end of the training by the individual university.

EMPLOYMENT OPPORTUNITIES

There are several clinical fellowship training programs in Canada for 2 years training. A recent survey sponsored by APOG from the 16 academic universities in Canada indicates that the needs for the next 5 years within the 16 academic centers are 18 new Urogynaecologists between 2006-2010. Therefore, there are ample job opportunities.

Canada's Voice for Excellence in Education and Research in Obstetrics and Gynaecology

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