January 9, 2017

Jason R. Frank, MD, MA (Ed), FRCPC
Royal College of Physicians and Surgeons of Canada
Director, Specialty Education, Strategy and Standards
Office of Specialty Education

Dear Committee on Specialties,

RE: Clarifications to Outcome of the Part I consideration of the application for recognition of pediatric urology as an Area of Focused Competence (Diploma) discipline

We have received and reviewed the committee’s comments regarding the application we submitted for the recognition of paediatric urology as an Area of Focused Competence (Diploma) discipline. We appreciate the thoughtful comments generated from your comprehensive review, and have carefully considered the committee questions and consulted nationally to address them in an appropriate and clear manner.

Why you perceive the AFC (Diploma) category to be the most suitable category of recognition for pediatric urology:

The AFC application was fully endorsed by the Pediatric Urology of Canada (PUC) group. The PUC group is mainly constituted of academic pediatric urologists but includes community urologists who practice pediatrics as well. The total number of PUC group members is around 40, and there are no dedicated community urologists who solely practice pediatric urology (hybrid adult/pediatric practices), in comparison to institutionally based pediatric urologists. Of note, there are some academic health centers in Canada that even lack a dedicated pediatric urologist. When the PUC first met in 2012, and again in 2014, to consider the question of advancing pediatric urology with Royal College recognition, considerable open discussion regarding an application for subspecialty recognition vs. an AFC diploma occurred. The group considers pediatric urology to belong within the specialty of urology as its “mother ship” because it builds on the knowledge and skills that are integral to the parent specialty. Therefore, the Diploma designation as defined by the Royal College is the most appropriate, as opposed to a separate specialty or subspecialty called “pediatric urology”.

In addition, from both training and practice perspectives, the pediatric urology specialty has evolved over the last two decades and has been impacted further by minimal exposure (and as a consequence narrowed competence) to surgical pediatric urology in residency training. Furthermore, the practice pattern has shifted to become more
medically and less surgically oriented. Hence the total number of dedicated pediatric urologists in the nation and their distribution (in urban areas) is limited and highly skewed. For the above reasons, it was an overwhelming reality that pediatric urology represents supplemental competencies that enhance urological practice and enhance care for the patients that we serve. PUC wanted to be as inclusive as possible and not prevent those in community centers from continuing with the provision of secondary pediatric urological care provided that care was of highest quality. An AFC diploma would not replace practice in the existing parent discipline (Urology), but rather establish national standards for training and competence while avoiding fragmentation of urological training and practice that might be seen with full subspecialty recognition.

*Considering the current existence of other active fellowship programs in this area, how would you envision the discipline’s national landscape (i.e. evolution of accredited training programs across Canada), pending its approval:*

The PUC group considered this process a step to further improve and standardize pediatric urology training nationally. They even unanimously agreed to support the application financially, feeling that this issue was important to all of Canada, all training programs, not just to SickKids. Currently PUC is creating a task force to assure that all Canadian pediatric urology training programs are represented and that the programs meet the training objectives as set by the CTR. The Division of Pediatric Urology at the Hospital for Sick Children (SickKids)- University of Toronto was identified by the PUC group to be the most suitable to represent them nationally in this endeavour. Historically, the SickKids program is well positioned and established in the field of pediatric urology training and as such, PUC feels that currently this program defines the standard of care and sets the bar for practice that Canadian children with genito-urinary pathologies deserve. At the time of the AFC application, it was felt that feedback must be gathered from all programs that offer pediatric urology fellowships across Canada, aside from SickKids. Furthermore the outcome letter from the COS was circulated to these different sites and this document has been prepared totally with all programs being considered, not just SickKids. The program directors of those four pediatric urology training sites other than SickKids (Montreal [Saint Justin and Montreal Children’s], Ottawa and Vancouver) agree that setting the bar high is mandatory for training to adequately generate competent pediatric urologists across the country and to strive for excellence within this specific area. Leaders of the Canadian Urological Association (CUA), the national voice of Urology, have been apprised of all details regarding AFC and this document, and transparency maintained.

*The removal of references to mandated blocks of time to acquire the competencies associated with pediatric urology, as per the intention of the AFC (diplomas) category to be competency-based.*

With the limited availability of standardized means and methods to assess surgical competence, we have relied on the historical duration needed to become an academic pediatric urologist. The duration of accredited pediatric urology training is a 1 to 2-year
period and is thought to be sufficient to acquire competence in the field of pediatric urology after successful completion of a urology residency. Nevertheless, we fully agree with this recommendation and will remove the references to time in the application. It is noteworthy that the alternative programs across the nation offer a 1-year clinical fellowship, whereas the SickKids program historically has been a 2-year duration, mirroring the time requirements that have been mandated by the American Board of Urology (ABU) for candidates to be eligible for the ABU certificate of added qualification (CAQ). This is also based on both the desire for the SickKids trainees to not only attain clinical competency, but to have additional academic competencies that will allow them to enhance the field as educators, investigators, and leaders. Hence and upon the receipt of the COS outcome letter, we all agree that the duration of fellowship may be altered as the trainees reach the necessary competence. Currently and in order to objectively assess competence; we are investigating different methods (Apps and Computer-Enhanced Visual Learning: CEVL- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931197/pdf/i1949-8357-1-1-109.pdf).

We would like to reiterate that although SickKids has taken the lead in constructing this application for AFC, it has been circulated, and received input that was included from the PUC membership at large, directors of all Canadian pediatric urology training programs, and the leadership of the CUA.

We thank the committee again for reviewing our application and for the feedback. We also look forward to working with the committee and the Office of Specialty Education at the Royal College to enhance and improve the care delivered to children needing pediatric urology care.

Sincerely,

Walid A. Farhat, MD FRCS(C), FAAP, FACS
Professor of Surgery, University of Toronto
Pediatric Urologist, SickKids
Fellowship Program Director
Associate Surgeon-in-Chief of Education
Surgical Undergraduate Coordinator
IDENTIFICATION OF APPLICANT BODY AND/OR SPONSORING ORGANIZATION

Name of the proposed diploma discipline (in both official languages):
Pediatric Urology/Urologie Pédiatrique

Name and address of applicant: *
Dr. Walid A. Farhat
Division of Urology- Rm M299
The Hospital for Sick Children
555 University Ave
Toronto, Ontario
M5G 1X8

Telephone # 416-813-6580 Fax # 416-813-7869
E-mail: walid.farhat@sickkids.ca

If necessary, please add a separate page with the names and addresses of co-applicants.

* NOTE: Please identify a single address for receipt of all correspondence relating to this application.

Dr. Martin Koyle (same as above)
Dr. Darius Bagli (same as above)
Dr. Armando Lorenzo (same as above)
Dr. Frank Papanikolaou (same as above)
Dr. Joana Dos Santos (same as above)
GENERAL INFORMATION (Questions 1 to 6)

1. **What is the name of the proposed diploma discipline (in both official languages)?**
   X: Pediatric Urology, Urologie Pédiatrique

2. **What are the entry criteria for this discipline?**
   
   **Type A:** Royal College specialty *(please specify)*: The criteria for successful entry into a Pediatric Urology Area of Focused Competence (AFC) Diploma Program is successful attainment of Fellowship in a Royal College of Physician and Surgeons of Canada residency in Urology or its equivalent.

3. **For Type A and Type B above, describe the relationship of this proposed diploma discipline to the parent specialty (ies) or subspecialty(ies).**  
   N/A
   X: The parent subspecialty for an AFC in Pediatric Urology is Urology. All Royal College AFC diplomas bearing Pediatric Urologists according to this specific designation would have successfully attained Royal College certification in Urology or its equivalent (eg American Board of Urology) and completed an accredited fellowship in Pediatric Urology. Although many of these surgeons would continue to practice Urology in its broadest sense, their practice will be concentrated in Pediatric Urology and where they would be required to participate in national and international Pediatric Urological academic and licensing bodies.

4. **Is there a National Specialty Society for the parent specialty(ies) or subspecialty(ies)?**
   Yes No N/A

5. **Is there a National Specialty Society for the proposed diploma discipline?**
   Yes No
   X: The National Specialty Society for the proposed diploma discipline is Pediatric Urologists of Canada (PUC).

6. **Describe the relationship between these societies (if applicable).**
   X: The PUC is affiliated with The Canadian Urological Association (CUA). The PUC meets annually at the annual CUA meeting held the last week of June. Thus they cooperate but are administratively separate with separate governance.
SPECIFIC INFORMATION (Questions 1 to 8)

1. Please describe the unique nature of the proposed diploma discipline.
   (What supplemental competencies or highly specific scope of practice is included that requires distinct recognition? What is the defined and recognized societal health need not currently being satisfied by any other recognized discipline? What positive contribution towards improving medical care and health outcomes does this discipline make?)

   X: Aligned with the Royal College of Physician and Surgeons of Canada (RCPSC) plan to create a mechanism to recognize increasing specialization obtained through rigorous post-residency training and without creating further fragmentation of existing Royal College certification programs and health services delivery, the Pediatric Urologists of Canada (PUC) respectfully submits this document for consideration to the Royal Colleges’ Committee on Specialties (COS). This document details a proposal that Pediatric Urology be recognized as a Diploma bearing program with all the rights and obligations that such designation confers.

   Pediatric Urology embraces a broad but focused mission and provides care to the entire urological and genital systems for infants, children and youth, for all surgical, medical and psychosocial issues related to the health and function of the kidneys, the bladder and the genitalia. This Mission carries with it the responsibility to provide ample and timely preparation to patients and their families for the patient’s eventual transition and entry into the adult health care system, as a responsible informed individual consumer of health services. With this mission in mind, the PUC has endorsed this document as a vehicle to promote the highest standards of patient care, education, research and organization by ensuring (as one step of many) that post-residency training in Pediatric Urology throughout Canada meets a minimum training and practice standard. The overarching goal of standardizing Pediatric Urology post-residency training is to promote excellence in clinical, academic, and leadership performance aligned with pediatric medicine in order to improve the health of all Canadians.

   Currently, absent such standardization, post-residency Pediatric Urology teaching and education in Canada is occurring in unregulated “clinical fellowship” placements that lack standards for education delivery, evaluation, and quality improvement. Herein, we articulate our statement of purpose, and rationale for such standardization and provide details for a program of study that would fulfill the Royal College’s Area of Focused Competence Diploma Program. A diploma would recognize the creation of national standards for training in which candidates deepen specific skill sets and competencies within the scope of Pediatric Urology. The Diploma program in Pediatric Urology would conform to the following format:

   Additional training following completion of an accredited RCPSC or equivalent General Urology Training Program;
   • Build upon training obtained in the broader discipline of Urology;
   • Supported within the existing RCPSC Specialty Committee of Urology;
   • Assessed through a summative portfolio;
   • Accredited according to Royal College standards;
   • A separate annual dues fee and distinct Maintenance of Certificate (MOC) requirements.

Need for Systems of Pediatric Urology Care and the current Gap in Pediatric Urology Care Delivery

Children, adolescents, and young adults with urogenital pathologies often require tertiary and quaternary care. They present with problems for which the knowledge and skills required for pre-, intra- and post-operative care often exceed the expectations and contemporary capabilities of current practicing adult urologists, as well as exceed the capacity of the average hospital resources. Care provided at regionalized tertiary and quaternary centers, through organized systems of Pediatric Urology care decreases Pediatric Urology related morbidity. The true value of a Pediatric Urology system is derived from the seamless transition between each
phase of care, integrating existing resources to achieve improved patient outcomes. The success
of a Pediatric Urology system is largely determined by the degree to which it is supported by
public policy. Hence, advocacy efforts are an exceedingly important function performed
primarily by academic Pediatric Urology physicians targeted towards the public, regulatory
bodies, and healthcare providers alike. Similarly, the recognition and endorsement of the
unique nature of the discipline afforded by an AFC in Pediatric Urology would be a critically
essential step towards this goal, particularly as the specialty lobbies for greater continuity of
patient care beyond adolescence and into adulthood. Transitional care for children with urologic
anomalies is currently poorly resourced and practiced across Canada, hence we believe that
urologists well trained in pediatric urology who later establish a mixed practice in both pediatric
and adult urology will be better positioned to provide seamless care.

Pediatric Urology systems should be locally, regionally, and nationally integrated in order to
assure that appropriate care is coordinated in a manner that provides seamless prevention, care
and rehabilitation for children with urogenital anomalies. In addition to fundamental operational
components (doctors, hospitals, patient transfers, etc.), the key infrastructure elements such as
leadership, professional resources, educational programs, advocacy, information management,
research, evaluation of new technologies such as minimally invasive and robotic surgery are
required to ensure maximal impact and value for any Pediatric Urology system.

Academic, university affiliated Pediatric Urology programs are accountable to parent universities
and their academic communities for administration, research, advocacy, postgraduate and post
residency training. These efforts will ultimately coalesce to result in the creation and
implementation of health policies that will decrease the burden of care for urogenital anomalies
and conditions and improve the health of children and outcomes in this subspecialty nationwide
and ultimately worldwide.

**Rationale for Post Residency Training in Pediatric Urology**

Pediatric Urology is a rapidly evolving branch of Urology where complete training no longer can
be obtained in a general Urology residency program. Indeed, training hours for pediatric urology
in the general residency are eroding. The true ability for the general Urology RCPSC Fellow to
provide safe and quality pediatric urology care has become increasingly at risk in recent years.
This evolution is not unique to Canada, and most recently, in 2008, the American Board of
Urology and American Board of Medical Specialties implemented a Certificate of Added
Qualification (CAQ) in Pediatric Urology in the U.S., for general Urology American Board of
Urology board eligible or board certified trainees. A pre-requisite to qualify to write the CAQ
examination is a formal 2 year accredited fellowship training program in Pediatric Urology. The
CAQ is not an exclusive requirement for a general urologist to practice any Pediatric Urology,
but rather recognizes the complexity of the training and care that is required for contemporary,
advanced, or complex, Pediatric Urological patients.

Standardization of post-residency Pediatric Urology education would address and begin to
remedy many of the challenges in Pediatric Urology care faced by Canadians, by ensuring that
graduates possess the requisite knowledge and competencies necessary for the highest quality
care of the children with urogenital anomalies. Challenges may include managing infants with
common genital anomalies like hypospadias, undescended testicles, and rare pathologies that
are a burden to the system, such as disorders of sexual differentiation and genitourinary tumors
in children. This cycle of quality improvement would be perpetuated by the continuous influx of
knowledge and continuing education recognized by a Royal College AFC diploma, disseminated
in a standardized and rigorous manner.

AFC recognition of "Pediatric Urology" by the Royal College would elevate its stature and assist
in garnering a greater audience with public and governmental institutions. This recognition will
improve the likelihood that Pediatric Urology physicians will be successful in creating public
policy that lessens the burden of both widespread and costly but latent disease conditions such
as urinary tract infection, as well as rare surgically, medically, psychosexually, and societally
challenging conditions such as the intersex pathologies (disorders of sexual differentiation), to
name a few.

The PUC endorses this document as a description of Diploma Requirements and as part of a
greater effort to ensure that Canadian children have access to the highest quality of clinical
care. PUC also wishes to ensure the highest level of training standards for future clinical and
academic leaders in managing the Pediatric Urology population. Such formalized and recognized
mechanisms to monitor and verify that Pediatric Urology programs are aligned with efforts to
ensure growth and renewal of clinical and academic excellence. Candidates successfully
completing the requirements of a Royal College designated Pediatric Urology AFC diploma would
receive the added qualification known as a Diplomat of the Royal College of Physicians and
Surgeons of Canada.

2. Please provide a list of journals and publications that support this special area.
(Demonstrate the value that these add to the medical literature. Indicate if they are
peer reviewed, indexed, the scope of distribution [national/international], the
subscription volume, and Canadian contribution to these publications. Where
meetings or societies are cited indicate the scope of these and the contributions of
Canadian physicians to these meetings or societies.)

X: The following academic peer-reviewed, indexed journals have international readership and
are dedicated to advance the science and practice of Pediatric Urology. All are peer-reviewed
and all have international readership.

There are a plethora of Urology based journals and each has a dedicated Pediatric section. The
first is entirely dedicated to Pediatric Urology and is instituting a Basic Science section with a
dedicated section editorial board.

- Journal of Pediatric Urology
- Journal of Urology- Pediatric Section
- Advances in Urology
- Journal of Pediatric Surgery
- Pediatric Surgery International
- Dialogues in Pediatric Urology
- Canadian Urological Association Journal
- Campbell’s Textbook of Urology
- Hinman’s Surgical Atlas of Pediatric Urology
- Gillenwater: Textbook of Adult and Pediatric Urology
- Kelalis and King: Textbook of Clinical Pediatric Urology

3. Are there training programs and/or established clinical fellowships for this discipline
in Canada? Yes ☑ No 
(Please describe including where the training takes place, how many trainees/year, what is the
duration of the training, what are the sources of funding for these programs.)

X:

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Trainees per year</th>
<th>Duration of Training Program</th>
<th>Source of Funding</th>
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<tbody>
<tr>
<td>Sickkids; Toronto</td>
<td>2</td>
<td>2 years</td>
<td>Hospital based</td>
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4. How will the recognition of this proposed diploma discipline affect the parent (sub)specialty(ies) and other related specialties? (Will there be overlap of patient populations, procedures, investigative techniques, areas of research? Please include both positive and negative implications.)

X: The creation of an Area of Focused Competence Diploma Program in Pediatric Urology will support and enhance, rather than fragment the practice of general urologists. Canadian Pediatric Urology physicians have a robust practice in Urology that extends beyond general Urology care. Such a practice often includes elective Urology and acute and office Urology care. Surgeons not specializing in Pediatric Urology care will continue to provide Urology care for pediatric patients, especially for patients with lesser degrees of complexity of urogenital anomalies (e.g. the young patient requiring a circumcision, hernia or hydrocele repair). However, the proposed training standards would similarly help ensure that patients are being cared for and operated by urologists specifically and contemporarily qualified to do so which is the right and expectation of any patient in Canada for any specialty. AFC Diplomates would be recognized as the individuals able to provide any needed mentorship to general urologists to enable the latter to provide quality care for this patient population. Moreover, general urologists would benefit from communities of Pediatric Urology practice led by graduates of the diploma program for patients with greater pathology burden and case complexity. Patients with more complex and more rare pathologies such as severe hypospadias and renal congenital diseases require more specialized surgical capabilities and in such cases, patients will benefit from, and be supported by surgeons with specific expertise in Pediatric Urology care. It would seem that there would be little dilution in areas of research between pediatric general surgeons and Pediatric Urology Surgeons. However, areas of overlap in the academic mission and research efforts between general Urology and Pediatric Urology, such as in understanding the underlying “developmental urology” basis of later adult conditions such as cancer risk, and long-term bladder function would be welcomed and encouraged as new opportunities for collaboration.

5. a) How would recognition of this diploma discipline affect: (Impact should be interpreted broadly and include community, the delivery of medical care, cost savings. Population health data should be included, if applicable.)

i. Delivery of medical care?

X: The recognition of Pediatric Urology as an Area of Focused Competence would promote greater advocacy, education and research and thus improve the care of children with specific urogenital problems. By raising the profile of the discipline, Diploma status will increase public and professional awareness of issues such as genital pathologies and common renal and bladder issues. The AFC would also strengthen the accountability of Pediatric Urology physicians to regulatory organizations such the Royal College and professional societies. The recognition of Pediatric Urology as an Area of Focused Competence and the educational programs that would be recognized under this specialty would enhance and help highlight cooperation between Pediatric medicine in general and education providers, through
measurement, standardization and collaboration within and among training programs nationally. Through training under the oversight of the Royal College leadership, patient advocacy, scholarship, research (epidemiology, health/Pediatric Urology systems and health services) educational programs and outreach initiatives for physician and non-physicians will be enhanced. These activities will synergize to improve the health of Canadian populations.

ii. Meeting community needs?
X: The recognition of Pediatric Urology as an Area of Focused Competence would assist in meeting the needs of communities by promoting the development of a cohort of expert specialists, whose primary clinical and academic foci are aligned. It would also catalyze common interests in Pediatric Urological anomalies with patient advocacy groups, particularly in regard to psychosocial and sexual awareness of this clinical area, and help young patients transition into society as adults. These efforts would be over and above any related clinical care delivery for community patients.

iii. Health care budgets?
X: The creation of an Area of Focused Competence Diploma program for Pediatric Urology will have no foreseeable immediate impact on health care budgets. There are no changes in physician reimbursement or hospital budgets either expressed or implied in this application. In the longer term, standardization and integration of education and care delivery related to Pediatric Urology should improve fiscal efficiencies and provide value through quality enhancement and cost minimization, and other mechanisms. For example, programs will collaborate rather than compete or work alone to develop teaching and assessment programs, clinical care protocols and research programs.

b) What role will the consultant in the proposed diploma discipline play in meeting community needs?
X: The Diploma consultant with a Focused Area of Competence in Pediatric Urology will play an essential role in meeting community needs. Such a consultant would be a resource to provide high level care to children with major urogenital anomalies, within and beyond a defined community. This care will include evaluation, investigation and treatment when needed for patients. Pediatric Urology physicians play an essential role in the Pediatric Urology system planning and ensuring that local community hospitals receive the education, mentorship, and other resources they require to care for certain types of patients (e.g. children with bowel bladder dysfunction, and mild genital anomalies), the transfer of more severely sick patients, and the appropriate retro-transfer of patients back to their more familiar communities.

c) Describe the academic role of the consultant in this discipline. (What would be the requirements for teaching and research, if the specialist was part of an academic/tertiary care center?)
X: Academic Pediatric Urology consultants would have a role in the following major areas:

i) Pediatric Urology physicians and surgeons would take an integral role in the education of medical students, residents, post-residency trainees and practicing clinicians via formal diploma training programs (described herein) as well as the development and promotion of Pediatric Urology related CME events.

ii) Pediatric Urology physicians and surgeons will also engage in research, mentorship and education of students, residents, clinical fellows, and established general urology practitioners outside of Pediatric Urology diploma programs (e.g. Pediatric Medicine residents and nurses), and Pediatric Urology diploma candidates to propel forward the science of treating children with urogenital anomalies.
iii) Pediatric Urology physicians and surgeons would play a central advocacy role by promoting legislation and informing policy through and unified and recognized voice of Canadian academic institutions. We expect these health policy initiatives to inform the best design, implementation and practices in Pediatric Urology systems.

d) Describe the patient population served by this discipline. (This should include variety and volume of patients with supporting information.)
X: Genitourinary anomalies albeit congenital such as hypospadias/ undescended testicles, or acquired, such as stone diseases and elimination dysfunction, are on the rise in the general population with an immense and growing economic and social impact. Although there are multiple studies that are investigating the environmental factors behind the rise of these anomalies and many surgeons are clinically tackling these congenital anomalies, dedicated services to provide care to the most challenging genitourinary pathologies in children are very much needed. The need stems not only from the necessity to standardize care of those children but rather, also to identify methods to streamline investigative initiatives and enhance our understanding of all pediatric urologic conditions. The patient population served by this discipline includes prenatal consultation on urogenital maternal-fetal conditions (fetal urological findings constitute 1-3% of all fetal abnormalities found on prenatal ultrasound), neonates (day 1 of age) up to 18 years of age and beyond. The service provided by the AFC diplomats will lead in galvanizing efforts to provide transitional care to this population. This is a growing challenge across all pediatric specialties. As the more complex children with major congenital problems survive into adulthood, they require ongoing care that is increasingly fragmented in the adult care setting, promoting an inflating spiral of cost and value loss that only adds to the intense pressures on the Canadian Health system.

e) Please estimate how many physicians are currently practicing the proposed diploma discipline in Canada and in which locations. (This should reflect the national physician workforce for the proposed specialty/subspecialty.)
X: At present there are approximately 37 Pediatric Urology surgeons across the country. Approximately 5 of them are within a decade of retirement.

f) Describe the current practice profiles of the physicians engaged in this discipline.
X: The practice profile of Canadian surgeons engaged in the care of children with urogenital anomalies is characteristically an urban, University affiliated practice. The clinical scope of this practice includes elective Pediatric Urology cases, acute care surgical emergencies such as testicular torsion and specialized expertise in bladder extrophy, major pediatric genital and sexual differentiation conditions, uro-oncology, and is some cases, pediatric kidney transplantation. Scholarship and academic pursuits among Pediatric Urology surgeons currently include education, outreach activities, clinical epidemiology, health services research, and basic science research.

g) Outline future (5 years and 10 years periods) projected workforce needs (FTEs) for practicing physicians in the proposed field.
X: Human Health Resources Planning
Pediatric Urology care is largely concentrated in large urban centers, as access to 24/7 subspecialty care from diverse disciplines as well as prompt diagnostic and surgical care to improve outcomes. In addition, as in many surgical disciplines, a requisite degree of exposure is important to ensure the best possible surgical outcomes. It is estimated that one full time Pediatric Urologist is required for each 1 million persons living within a defined geographic region. In order to effectively meet its clinical and academic mandate, each center requires a minimum of 1 post residency trained Pediatric Urology surgeon. We predict the need for approximately 40 Pediatric Urology trained surgeons for the 33+ million population in Canada. At present there are approximately 37 Pediatric Urology surgeons across the country, with
approximately 5 surgeons within a decade of retirement. With the majority of the trainees in Pediatric Urology seeking jobs outside Canada, it would be wise to train a minimum of 3 Pediatric Urology surgeons per annum nationally for the foreseeable future. Many Canadian surgical graduates travel to the United States to receive post residency training in Pediatric Urology, although with maturation of Canadian Pediatric Urology centers this trend may reverse. We continue to recognize an obligation to train international graduates who return to their countries of origin and bring back specialized knowledge related to state-of-the-art clinical care and Pediatric Urology skills that serve populations in the developing world, where the need is particularly urgent.

h) **What is the impact of technology both in terms of requirements to practice and expected impact of future technological development on the need for the proposed diploma?**

X: The expansion of telemedicine capacity and technology will further enhance the care of children in remote areas by allowing communities and practitioners geographically far from Pediatric Urology centers to have more timely access to advice, and eventually to technical assistance in the immediate management and potential transfer of patients to Pediatric Urology centers. Further advances in surgical technologies such as minimal invasive surgery (MIS) and robotic surgery have potential to improve the outcomes of surgery and change the landscape of the field in the future.

6. **Why is recognition by the Royal College essential for the success of the proposed diploma discipline?**

X: **Quality Assurance**

The Royal College accreditation cycle maintains and improves the quality of training programs. The imperative to meet RCPSC accreditation standards benefits teachers, learners, and patients. Under the same principle, the quality improvement requirements that the Royal College oversight brings will enhance the mission to create and maintain Pediatric Urology expertise in Canada.

Children with urogenital anomalies are a relatively vulnerable and voiceless segment of society. Providing these patients with a standard-bearer in the form of RCPSC Diplomats in pediatric urology remains an unmet public health need. Recognition of Pediatric Urology by the Royal College as a Diploma bearing specialty would elevate Pediatric Urology care’s profile as an object of public education, and provides the Canadian public with a champion within the health system to protect these vulnerable health interests with public and governmental institutions. This would in turn facilitate more impact and dissemination of best practice guidelines in the management of children with genitourinary pathologies.

7. **What would be the projected effects on the Canadian health care system from the recognition of the proposed diploma discipline? Include both potential positive and negative impacts.**

X: This is similar to the question above. We expect that standardized and enhanced education of future Pediatric Urology physicians, and the recognition that Royal College Diploma status would bring to the discipline, will enhance care delivery and value to, and recognition of this vulnerable population. An AFC in Pediatric Urology creates a credential that enhances efforts in advocacy in Pediatric Urology at all levels of the Canadian health care system.

8. **Please identify Canadian organizations and stakeholders who should be consulted regarding this application. (Other than the groups identified in the Part II, Consultation section. The applicant is required to provide the names and addresses of the identified organizations and stakeholders)**

X: The Canadian organizations and stakeholders who should be consulted include the Pediatric Urologists of Canada (PUC), the Canadian Urological Association (CUA), and the Canadian Pediatrics Association. Relevant pediatric system stakeholders include academic pediatric institutions and hospitals, and urology training programs.
DISCIPLINE SPECIFIC INFORMATION:
A completed application form must include the following:

1. A draft version of the Competency Training Requirements (CTR) for the diploma discipline. Enclosed

2. A document outlining the proposed strategy for the assessment of competencies to ensure that graduates of postgraduate training programs in this proposed diploma discipline are competent specialists.

Entrance Requirements for Diploma Program in Pediatric Urology

Trainees who enter post residency diploma training programs in Pediatric Urology are Urologists who have completed the Urology training and examinations specified by the Royal College of Physicians and Surgeon of Canada for specialty qualification, or its equivalent if training has been completed outside Canada. The Royal College Pediatric Urology diploma program will ensure that candidates achieve expertise beyond the minimum pediatric urology training achieved during general Canadian Urology residency programmes. These diploma competencies relate to the acquisition of specific and specialized expertise in pediatric urology and associated academic training not normally acquired during residency training.

Candidates must possess up-to-date Pediatric Basic Life Support (BLS) training and will be required to fulfill provincial and university requirements to obtain an educational license. Local procedural guidelines relevant to post residency training and specific to each university and province will be followed.

Each qualifying pediatric urology diploma program will determine, and articulate in writing, its application and selection process for Pediatric Urology diploma trainees. The selection process should be transparent and be vetted through a selection committee. Successful applicants will have demonstrated excellence in clinical care and above average academic achievement in any of the following areas: research, education, quality assurance, or protocol development (aka clinical practice guidelines). The successful diploma candidate will also have demonstrated exemplary professional conduct throughout their training.

If the language of instruction at medical school was not English, candidates must demonstrate proficiency in written and oral communication in English (or French if a diploma programme is established in a francophone academic centre in Canada) sufficient to function in the capacity of a post residency surgeon in the clinical environment, and at a minimum pass the TOEFL examination if English is not the candidate’s first language. A valid work VISA from Canada Employment and Immigration is required. Membership in the Canadian Medical Protective Association or equivalent academic trainee liability insurance (http://www.cmpa-acpm.ca) is mandatory for all trainees. Disability insurance is recommended for all trainees.

Program Administration
The Pediatric Urology Diploma program will have a dedicated faculty level programme director (PD). The PD will be responsible for the orientation and overall coordination of the diploma program and will ensure that the standards articulated in this document are met. The PD will also coordinate trainee evaluation in conjunction with all faculty members in the training programme. The program will clearly articulate the on-call requirement, vacation period, professional leave, parental leave, and salary level expectations. In addition to meeting Royal College standards for Diploma Programs, as each Diploma programme in Pediatric Urology comes into existence, faculty members from such programmes will play a pivotal role in accrediting additional new Diploma programs. Until a minimum of three programmes come online, an ad hoc group drawn from the Pediatric Urologists of Canada (PUC) plus members from the initial Diploma programmes will participate in the accreditation process. Senior academic pediatric urology faculty from accredited 2-year Pediatric Urology fellowship training programmes in the U.S. may be called upon in the early programme establishment phase if a critical mass of accreditors is required only until such time as the first three programmes are established in Canada.
Program Structure
The diploma program should be affiliated with the Post Graduate Training Programs at the University and reside within the Department of Surgery specifically within the Division of Urology (or solely within a Department of Urology if it exists), as Urology is the parent specialty of Pediatric Urology. A diploma program in Pediatric Urology will be of sufficient duration to ensure acquisition of essential competencies (detailed later in this document) and will be deemed to require a minimum of 12 months of training. Given the inter-disciplinary nature of children’s urology, candidates may combine post residency pediatric urology training with related urological subspecialties such as infertility or reconstructive urology, in respective training environments also accredited by the RCPSC, in order to provide a training experience tailored to the diplomat trainee’s career interests in pediatric urology. Under these circumstances, training duration may be extended beyond 12 months but will remain 12 months at a minimum. The Pediatric Urology Diploma program director will coordinate such training arrangements with the fellowship directors in these other areas to ensure that Royal College requirements are consistently met.

Educational Goals
A training program that supports the training of Urologists with advanced competency in Pediatric Urology would include sufficient exposure to a wide range of congenital or acquired genitourinary problems in children and adolescents. Specifically, the Program should provide exposure to a minimum of 200-250 children with genitourinary conditions per annum, with a patient mix necessary to ensure a reasonable expectation that the goals and objectives of training are met. Pediatric Urology Diploma candidates should have sufficient surgical/clinical exposure to ensure competency related to congenital anomalies and their anatomy, functional non-surgical and medical urologic conditions, and surgical management. Specific time dedicated to scholarship/research is considered optional—with the exception of one research project to be completed during the course of the programme (see below)—as long as clinical training comprises a minimum of 12-month training period. Scholarship/research time may exceed 3 months if the total training period exceeds 12 months and could be done concurrently throughout the clinical training phase.

There should be least 3 full time faculty surgeons at each site with a major clinical and academic focus in the care of children with urogenital conditions. Each program should demonstrate a formal written educational curriculum including but not limited to weekly exposure to topics in multi-disciplinary urology-nephrology, uroradiology, pathology, morbidity and mortality and quality assurance review, journal clubs, and systematic quality improvement activities.

This Pediatric Urology Diploma will provide enhanced expertise aligned with the following CanMeds competencies:

Communicator - The candidate will develop resource management skills relevant to management of children with genitourinary conditions. The candidate will develop specific skills related to the delegation of tasks to other team members, timely and effective communication with consultants to develop and implement relevant care plans and skills relevant to communicating sensitive information about preoperative, intra-operative and long term outcomes for children with genitourinary conditions.

Collaborator - The candidate will understand the importance of and show competence in collaborating with multiple medical specialties and other professionals to ensure that patients receive the highest quality care possible.

Scholar - The candidate will build on already existing critical appraisal skills and participate in quality assurance and protocol review. The candidate will demonstrate a commitment to reflective learning, as well as creation, dissemination, application and translation of medical knowledge. The candidate will participate in weekly educational rounds, journal clubs and morbidity/mortality/quality reviews. The candidate will complete at least one research project to be presented at an annual scientific meeting; this research project should result in preparation of a manuscript for submission for publication.

Health Advocate – The candidate will use their expertise and influence responsibly to advance the health and well-being of individual patients, communities and populations.
Leader – As physician leaders, the candidates are integral participants in health care organizations, organizing sustainable practices, making decisions concerning the allocation of resources, and contributing to the effectiveness of the health care system. Candidates will develop managerial competencies through their leadership role on the service. They will act collaboratively and in a supervisory role with house staff from various disciplines as well as other health professionals from various disciplines. The trainee will develop knowledge and skills relevant to appropriate resource allocation while overseeing the pediatric urology service.

Medical Expert - The candidate will develop competency in surgery and care related to children with genitourinary conditions. The candidate will develop competency in the correct application, choice, and performance of the appropriate surgical procedures as well as selecting appropriate courses of medical or functional intervention.

At the completion of the Diploma Program in Pediatric Urology the trainee will have obtained skills and expertise in the following areas of the medical expert domain:

Fellowship education in pediatric urology consists of the diagnosis, management, and treatment of fetal, perinatal, child, and adolescent genitourinary and adrenal abnormalities, diseases, and conditions, and the promotion of health with prevention of disease in the developing genitourinary system. This includes specifically: experience with fetal and genetic evaluation; pediatric endocrinology; issues of renal disease, such as chronic renal insufficiency, and transplantation; congenital and acquired structural and functional conditions affecting the urinary tract, including uro-neurological such as spina bifida and neurogenic bladder; the diagnosis and management of congenital genitourinary anomalies, and reconstructive urology. For the full integration of patient management in these areas, the following are required: education in advanced imaging of the pediatric genitourinary tract; radiation and imaging safety risks; pharmacology and safety of commonly used agents, and constant attention to pediatric pain management.

Table 1: List of Key Operative Procedures Candidates will have had exposure to the surgical procedures listed below as a minimum.

<table>
<thead>
<tr>
<th>Inguinal Surgery</th>
<th>Completed Independently</th>
<th>Completed with Assistance</th>
<th>Had exposure to (clinical case via animal course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hernia/Hydrocele</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orchiopexy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Urinary Tract</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pyelolithotomy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair of ureteropelvic junction</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nephrectomy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial Nephrectomy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Urinary Tract</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reimplantation</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ureteroureterostomy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resection of Posterior urethral Valves (PUV)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vesicostomy creation and takedown</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stent Insertion and removal</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ureteroscopy</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone extraction</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitrofanoff</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Augmentation cystoplasty</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genital Surgery</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypospadias - Mild</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Application for Recognition of an AFC (Diploma) Discipline

**Application - Part I**

<table>
<thead>
<tr>
<th>Exstrophy</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epispadias Repair</td>
<td>✓</td>
</tr>
<tr>
<td>Pediatric Kidney Transplant</td>
<td>✓</td>
</tr>
<tr>
<td><strong>PD Catheter Insertion and removal</strong></td>
<td>✓</td>
</tr>
</tbody>
</table>

#### Minimal Access Surgery

| Lap Orchiopexy (1<sup>st</sup> & 2<sup>nd</sup> stage) | ✓  |
| Lap Nephrectomy                  | ✓  |
| Lap Pyeloplasty                  | ✓  |
| Lap Pyelolithotomy               | ✓  |
| Lap MACE                         | ✓  |

Table 2: The Candidate will have successfully completed the following Non-Technical Competencies

<table>
<thead>
<tr>
<th>CanMeds Competency</th>
<th>Medical Expert</th>
<th>Communicator</th>
<th>Collaborator</th>
<th>Professional</th>
<th>Scholar</th>
<th>Health Advocate</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Candidate Role</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage and lead team dealing with genitourinary case</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lead journal club related to Pediatric Urology related topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Participation in Multidisciplinary rounds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Participation in local, regional QI initiatives</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Participation in education of students, residents, multidisciplinary team</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation at a scientific meeting devoted to the care of the patient</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of Update of Clinical Practice Guidelines (at least 1 per annum)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Engagement with prehospital systems</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Development of attendance at or increasing local awareness of Pediatric GU anomalies</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Communication of Unexpected Poor outcome to patient or family

Evaluation of Diploma Candidates
Pediatric Urology Training Programs will have a mechanism to evaluate the performance of trainees in each of the CanMEDS roles. This evaluation should be documented at least every 4-6 months and should include assessment through the process of observation of trainees in clinic, the operating theatres performing key procedures (Table 1), leading multidisciplinary and teaching rounds, and conducting family meetings.

Examples of assessment methods to be included in the portfolio are detailed below.

Table 3: Assessment methods to be included in the portfolio for Pediatric Urology

<table>
<thead>
<tr>
<th>CanMeds Competency</th>
<th>Examples of tools and methods used for assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>The candidate will be assessed to be sufficient in their knowledge of children with genitourinary conditions by completion of ITERs with input from supervisory faculty. These ITERs should be completed every 4-6 months and discussed with the candidate. The candidate will lead at least two journal club related to a Pediatric Urology topic. The candidate will demonstrate proficiency with the management of the pediatric urology patient and their family. The candidate will lead at least two mortality and morbidity rounds review.</td>
</tr>
<tr>
<td>Technical Skills</td>
<td>The candidate will demonstrate proficiency in key operative procedures listed in Table 2. The candidate will maintain a log of all operative cases using a standardized logging format to be adopted by all Diploma training programmes.</td>
</tr>
<tr>
<td>Collaborator</td>
<td>The candidate will demonstrate proficiency by participating in the care of the patient through collaborative efforts to coordinate with various specialties and disciplines.</td>
</tr>
<tr>
<td>Communicator</td>
<td>The candidate will demonstrate proficiency by participating in the care of the patient through collaborative efforts to coordinate with various specialties and disciplines. The candidate will demonstrate proficiency through their interaction with various services and disciplines.</td>
</tr>
<tr>
<td>Health Advocate</td>
<td>The candidate will demonstrate proficiency by completing at least one related quality assurance project (in addition to the one scholarly research project mentioned above). This project could involve care delivered to the patient at the referring hospital or thereafter.</td>
</tr>
<tr>
<td>Professional</td>
<td>The candidate will demonstrate proficiency by ensuring that all medical paper or electronic records and reports are complete, managing professional and personal priorities efficiently.</td>
</tr>
<tr>
<td>Leader</td>
<td>The candidate will demonstrate proficiency by coordinating the care of patients on both in-patient and out-patient services. The candidate will demonstrate proficiency by completing one clinical practice guideline or quality improvement project during the period of training (see above).</td>
</tr>
<tr>
<td>Scholar</td>
<td>The candidate will complete at least one scholarly research project during the period of training. The focus of this project could be in the areas health services, research, educational care, and outcomes of children with Pediatric genitourinary anomalies. This research project should be presented at a National or International Scientific Meeting whose major focus is Pediatric Urology care. This research project should be designed and prepared for publication.</td>
</tr>
</tbody>
</table>

This assessment will be conducted every 4-6 months throughout the program, and includes the following:

1- Evaluation report:
This will be a summative evaluation report prepared for each trainee based on the end of rotation reports, which might also involve clinical, oral exams, and completing other academic or clinical assignment(s). These academic or clinical assignments will be documented by an electronic tracking system (when applicable) on an annual basis. Evaluations will be based on accomplishment of the minimum requirements of the procedures and clinical skills as determined by the program.

In order to fulfill the CanMEDS competencies based on the end of rotation evaluation, the trainee’s performance will be evaluated jointly by the different faculty for the following competencies:
1. Performance of the trainee during daily work.
2. Performance and participation in academic activities.
3. Performance in a 10– 20 minute direct observation assessment of trainee-patient interactions (including in the outpatient department, inpatient ward, and operating room).

Faculty will be encouraged to perform at least one assessment per clinical rotation (ie 3-4 months), preferably on a monthly basis. The faculty will be encouraged to provide timely and specific feedback to the trainee after each assessment of a trainee-patient encounter.

Comprehensive competency report (CCR)
In addition to the approval of completion of clinical requirements (trainees logbook and evaluation reports) by the faculty, a CCR will be prepared by the program director for each trainee based on direct input by all faculty, which might also involve clinical, oral exams, and completing other academic assignment(s).
3. Outline the implementation issues for the proposed diploma discipline. Include information on:

a) Number of sites capable of mounting a training program in Canada, including the number of training positions estimated at each site.

Table 4: Sites capable of mounting a training program in Canada

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of Trainees per year</th>
<th>Duration of Training Program</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickkids; Toronto</td>
<td>2</td>
<td>2</td>
<td>Hospital based</td>
</tr>
<tr>
<td>Children’s Hospital of Eastern Ontario; Ottawa</td>
<td>1</td>
<td>1-2</td>
<td>Hospital based</td>
</tr>
<tr>
<td>Montreal General Hospital, McGill University, Montreal</td>
<td>1</td>
<td>1</td>
<td>Hospital based</td>
</tr>
<tr>
<td>Saint Justin, Montreal</td>
<td>1</td>
<td>1</td>
<td>Hospital based</td>
</tr>
</tbody>
</table>

b) Please estimate the number of faculty currently available nationally with expertise in the proposed diploma discipline and identify where they are located across the country.

List can be provided by PUC.

c) What will be the funding implications for training opportunities? The funding for fellows and trainees in Pediatric Urology is usually secured through a combination of the local practice plan and institutional support.

d) Please describe any anticipated impacts on Postgraduate Medical Education or practice systems in any region?

The current fellowship programs have had no negative impact on residency training; rather they have enhanced resident education and provided urology residents with opportunities to expand on their knowledge and skills through the interaction with urology fellows. The case distribution and educational responsibilities have been adequately overseen by the program directors and a good and equitable share of cases for training purposes.
DEFINITION

**Pediatric Urology** is that area of enhanced competence within urological surgery and medicine concerned with the study of the genitourinary systems and affected systems in children, adolescents, and the transitional period into adulthood. Thus, Pediatric Urologists provide care for the entire gender range (across the classical male-female continuum) ranging from birth into adult life. The most common surgical problems are those congenital or acquired disorders involving the kidneys, bladder, genitalia, and reproductive organs.

ELIGIBILITY REQUIREMENTS

The Area of Focused Competence (AFC) Diploma trainee must have Royal College certification in General Urology, or its equivalent. All trainees must be certified in their primary specialty in order to be eligible for the Royal College certification portfolio in Pediatric Urology.

GOALS

Upon successful completion of training, AFC Diplomates are expected to function as a competent Urological specialist with focused competence in Pediatric Urology. The AFC trainee will have acquired an advanced working knowledge of the theoretical, functional, and technical bases of this discipline, including its foundations in science, bioethics, and research. An AFC diplomate must understand the normal function and the pathological processes and diseases that affect the kidneys, ureters, bladder, urethra, and genitalia in the male and female pediatric patient. This includes an understanding, appropriate to the practice of Pediatric Urology, of normal development and embryology, biochemistry and pharmacology, physiology, anatomy, and gross and microscopic pathology of the genitourinary tract in children.

Diplomates must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered and family-centered care and apply these skills to provide exceptional service to a biologically, culturally, and socially diverse population. In all aspects of specialist practice, the candidate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, and ethnicity in a professional manner.
At the completion of training, the diplomate will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As Medical Experts, Pediatric Urology diplomates integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. Medical Expert is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Pediatric Urology diplomates are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care

   1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or oral form, in response to a request from another health care professional

   5.1.1. Perform a focused physical examination and urological history, including past and present medical history relevant to the urological care of the patient

   5.1.2. Formulate a differential and provisional diagnosis

   5.1.3. Order or perform, and interpret the required investigations

   5.1.4. Formulate a treatment plan for the urologic patient

   5.1.5. Communicate the consultation, both verbally and in written format, including a clear plan of action or recommendation

   1.2. Demonstrate use of all CanMEDS competencies relevant to Pediatric Urology

   1.3. Identify and appropriately respond to relevant ethical issues arising in patient care

   1.4. Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems

   1.5. Demonstrate compassionate and patient-centered care

   1.6. Recognize and respond to the bioethical dimensions in medical and surgical decision-making

   1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed
2. Establish and maintain clinical knowledge, skills and attitudes appropriate to Pediatric Urology

2.1. Apply knowledge of the clinical, socio-ethical behavioral, and fundamental biomedical sciences relevant to Pediatric Urology

2.1.1. Congenital and developmental abnormalities

2.1.1.1. Kidney and ureter

2.1.1.1.1. Cystic disease of the kidney
2.1.1.1.2. Horseshoe kidney and other renal anomalies
2.1.1.1.3. Duplication, retrocaval ureter and other ureteric anomalies

2.1.1.2. Bladder and urethra

2.1.1.2.1. Vesicoureteral reflux
2.1.1.2.2. Posterior urethral valves
2.1.1.2.3. Epispadias and extrophy
2.1.1.2.4. Hypospadias and chordee
2.1.1.2.5. Other anomalies

2.1.1.3. External genitalia

2.1.1.3.1. Disorders of sexual differentiation
2.1.1.3.2. Undescended testis
2.1.1.3.3. Scrotal and external genital anomalies

2.1.2. Obstructive disease of the upper urinary tract (including prenatal)

2.1.2.1. Hydronephrosis and obstructive uropathy
2.1.2.2. Ureteropelvic junction obstruction

2.1.3. Obstructive disease of the lower urinary tract (including prenatal)

2.1.3.1. Bladder outflow obstruction
2.1.3.2. Urethral strictures
2.1.3.3. Obstruction secondary to neurological disorders

2.1.4. Urinary calculus disease

2.1.4.1. Renal and ureteral calculi
2.1.4.2. Bladder and urethral calculi

2.1.5. Urinary fistulae

2.1.6. Urinary and genital infections

2.1.6.1. Bacterial (complicated and uncomplicated) and non-bacterial cystitis and urethritis
2.1.6.2. Pyelonephritis and other renal infections including xanthogranulomatous pyelonephritis
2.1.6.3. Prostatitis

2.1.7. Trauma (including the genito-urinary aspects of multi-system trauma evaluation and management)

2.1.7.1. Renal trauma
2.1.7.2. Ureteral trauma
2.1.7.3. Bladder trauma
2.1.7.4. Urethral trauma
2.1.7.5. External genital trauma

2.1.8. Renovascular hypertension

2.1.8.1. Surgically correctable hypertension

2.1.9. Renal transplantation

2.1.9.1. Recipient selection and organ donation
2.1.9.2. Relevant transplantation immunology
2.1.9.3. Principles of immunosuppression
2.1.9.4. Management of surgical complications of renal transplantation

2.1.10. Urological oncology

2.1.10.1. For all tumours (benign and malignant) of the genito-urinary tract in children, the diplomate MUST:
- be able to diagnose the condition through appropriate use of investigative and diagnostic techniques
- know the staging and grading systems that are in common use
- know the principles of cancer management, including the role of surgery, radiotherapy, chemotherapy and immunotherapy
- be familiar with the role of percutaneous, angiographic and new techniques and their indications; and
- understand the principles of cancer palliation
2.1.11. Tumours of the kidney
   2.1.11.1. Wilms’ tumour and others

2.1.12. Tumours of the bladder

2.1.13. Cancer of the prostate
   2.1.13.1. Rhabdomyosarcoma

2.1.14. Tumours of the testis
   2.1.14.1. Germ Cell (including serminoma and non-seminoma)
   2.1.14.2. Non-germ cell tumours

2.1.15. Voiding Disorders including relevant neurourology
   2.1.15.1. Urinary incontinence
   2.1.15.2. Voiding dysfunction due to neurological disease
   2.1.15.3. Nocturnal enuresis
   2.1.15.4. Functional voiding disorders

2.1.16. Systemic diseases and other processes affecting the urinary tract
   2.1.16.1. Urological manifestations of systemic diseases (connective tissue diseases and diabetes mellitus)

2.1.17. Disorders of the male external genitalia
   2.1.17.1. Hydrocele, varicocele, spermatocoele, cysts
   2.1.17.2. Torsion of the testis, cord and appendages
   2.1.17.3. Inguinal hernia

2.2. Describe the CanMEDS framework of competencies relevant to Pediatric Urology

2.3. Integrate the available best evidence and best practices to enhance the quality of care and patient safety in Pediatric urology

3. Perform a complete and appropriate assessment of a patient

   3.1. Identify and effectively explore issues to be addressed in a patient encounter, including the patient’s context and preferences
   3.2. Elicit a history that is relevant, concise, and accurate to context and preferences, for the purposes of diagnosis, management, health promotion, and disease prevention
   3.3. Perform a focused physical examination that is relevant and accurate for the purposes of diagnosis, management, health promotion, and disease prevention
   3.4. Select medically appropriate investigative methods in a resource-effective and ethical manner and managing children with urologic anomaly

   3.4.1. Radiography and fluoroscopy (Retrograde, VCUG)
   3.4.2. Ultrasound
   3.4.3. Computed tomography (CT) and CT angiography
3.4.4. Magnetic Resonance Imaging (MRI)
3.4.5. Angiography

3.5. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive and therapeutic interventions effectively

4.1. Implement a management plan in collaboration with a patient and the patient’s family
4.2. Demonstrate appropriate and timely application of preventive medical or surgical interventions relevant to Pediatric Urology
   4.2.1. Antibiotic prophylaxis for children with urinary tract infection
4.3. Demonstrate appropriate and timely application of therapeutic medical or surgical interventions relevant to Pediatric Urology
4.4. Ensure appropriate informed consent is obtained for therapies
4.5. Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

5.1. Demonstrate effective, appropriate, and timely selection and performance of diagnostic procedures relevant to Pediatric Urology
   5.1.1. Urinalysis
      5.1.1.1. Routine urinalysis
      5.1.1.2. Urine culture techniques
      5.1.1.3. Urinary collections for metabolic studies
   5.1.2. Biochemical serum studies
      5.1.2.1. Renal function tests
      5.1.2.2. Adrenal function tests
      5.1.2.3. Tumour markers
   5.1.3. Retrograde urethrography, cystography and pyelography
   5.1.4. Antegrade imaging of the kidneys and pelvic vessels
5.1.5. Voiding cystourethrography

5.1.6. Ultrasonography
5.1.6.1. Kidney
5.1.6.2. Bladder
5.1.6.3. Prostate
5.1.6.4. Scrotal contents
5.1.6.5. Doppler studies of renal, gonadal and penile vessels
5.1.6.6. Ultrasound-guided procedures (aspirations, biopsies, drainage)
5.1.6.7. Prenatal Imaging

5.1.7. Radioisotope studies
5.1.7.1. Renal Scans (all types)
5.1.7.2. Voiding cystograms
5.1.7.3. Scans for localization of inflammatory lesions

5.1.8. CT Scanning
5.1.8.1. Abdomen and pelvis, including CT urogram
5.1.8.2. CT guided procedures: aspirations, biopsies, drainage

5.1.9. MRI scanning of the urinary tract
5.1.10. Angiography of the renal vasculature
5.1.11. Urodynamic studies
5.1.11.1. Cystometrogram
5.1.11.2. Uroflowmetry
5.1.11.3. Voiding pressure studies
5.1.11.4. Pelvic floor electromyography
5.1.11.5. Videourodynamic studies

5.1.12. Interpretation of diagnostic histopathology
5.1.12.1. Malignant tumours of the kidney
5.1.12.1.1. Wilms’ tumour
5.1.12.2. Benign tumours of the kidney
   5.1.12.2.1. Angiomyolipoma

5.1.12.3. Bladder and prostate neoplasms
   5.1.12.3.1. Rhabdomyosarcoma

5.1.12.4. Testis Tumours
   5.1.12.4.1. Germ cell tumours (seminoma and non-seminoma)
   5.1.12.4.2. Functional tumours of the testis (Leydig cell tumours)
   5.1.12.4.3. Sertoli cell tumours

5.1.12.5. Inflammatory lesions of the kidneys
   5.1.12.5.1. Xanthogranulomatous pyelonephritis
   5.1.12.5.2. Chronic pyelonephritis

5.1.12.6. Inflammatory lesions of the lower urinary tract
   5.1.12.6.1. Cystitis cystica
   5.1.12.6.2. Prostatitis

5.2. Demonstrate effective, appropriate, and timely selection and performance of therapeutic procedures relevant to Pediatric Urology

**Endoscopic and Percutaneous Procedures:**

- Cystoscopy and urethroscopy, ureteric catheterization including ureteric stent insertion and removal, retrograde pyelography
- Urethral dilatation and visual internal urethrotomy
- Transurethral biopsy of bladder and prostate
- Transurethral resection of bladder tumours
- Transurethral resection/incision of ureterocele
- Manipulation of bladder calculi including litholapaxy
• Ureteroscopy, lithotripsy and basket extraction of ureteric calculi
• Endoscopic injection for vesico-ureteric reflux
• Suprapubic catheter insertion
• Percutaneous renal surgery including nephrolithotomy with ultrasound/electrohydraulic/laser lithotripsy
• Resection of posterior urethral valves

Open Surgical Procedures:

• Circumcision
• Urethral meatotomy, meatoplasty
• Scrotal surgery - hydrocele, simple orchidectomy, testicular biopsy
• Varicocele repair
• Pediatric indirect hernia repair
• Orchidopexy for inguinal testis and intraabdominal testis
• Radical orchidectomy
• Repair of testicular torsion
• Repair of urinary fistulae - involving bladder, urethra, ureter, kidney
• Procedures for ureteral and bladder trauma repair
• Pyeloplasty for ureteropelvic junction obstruction
• Nephrectomy (simple and radical)
• Partial nephrectomy
• Nephroureterectomy
• Uretero-ureterostomy
• Ureteroneocystotomy – ureteral reimplantation
• Nephrolithotomy and ureterolithotomy
• Cutaneous ureterostomy/pyelostomy
• Vesicostomy
• Procedures for correction of penile curvature and hypospadias (mild, moderate, severe)
• Augmentation cystoplasty
• Insertion of testicular prosthesis
• Surgical reconstruction for exstrophy and epispadias
• Renal transplantation and transplant nephrectomy
Laparoscopic Procedures:

- Laparoscopic nephrectomy (simple and radical)
- Laparoscopic orchiopexy/orchiectomy for abdominal testis
- Laparoscopic assisted bladder surgeries and bowel surgery (MACE)
- Pyeloplasty
- Varicoceletomy
- Partial nephrectomy

5.3. Ensure appropriate informed consent is obtained for interventional procedures

5.4. Document and disseminate information related to interventional procedures performed and their outcomes

5.5. Ensure adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals, recognizing the limits of their own expertise

6.1. Demonstrate insight into their own limits of expertise

6.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care

6.3. Arrange appropriate follow-up care services for patients and their families
Communicator

**Definition:**

As Communicators, Pediatric Urology diplomates effectively facilitate the doctor-patient-family relationship and the dynamic exchanges that occur before, during, and after the medical encounter, including a duty to communicate and inform on undesired and unanticipated outcomes.

**Key and Enabling Competencies: Pediatric Urology diplomates are able to...**

1. **Develop rapport, trust, and ethical therapeutic relationships with patients and families**
   
   1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence, and improved clinical outcomes
   
   1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty, and empathy
   
   1.3. Respect patient confidentiality, privacy, and autonomy
   
   1.4. Listen effectively
   
   1.5. Be aware of and responsive to nonverbal cues
   
   1.6. Facilitate a structured clinical encounter effectively

2. **Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**

   2.1. Gather information about a disease and about a patient's family beliefs, concerns, expectations, and illness experience
   
   2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers, and other professionals

3. **Convey relevant information and explanations accurately to patients and families, colleagues, and other professionals**

   3.1. Deliver information to a patient and family, colleagues, and other professionals in a humane manner and in such a way that it is understandable and encourages discussion and participation in decision-making
   
   3.1.1. Communicate bad news to patients and families in an empathetic manner
4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

4.1. Identify and effectively explore problems to be addressed from a patient encounter effectively, including the patient’s context, responses, concerns, and preferences

4.2. Respect diversity and differences, including but not limited to the impact of religion, cultural beliefs, and the fluidity of gender and the patient's personal relationship orientation, on decision-making

4.3. Encourage discussion, questions, and interaction in the encounter

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

4.5. Address challenging communication issues effectively, including but not limited to obtaining informed consent, delivering bad news, recognize a duty to communicate on undesired or unanticipated outcomes, as well as addressing anger, confusion, and misunderstanding in themselves and the patients and families for whom they provide care.

4.5.1. Demonstrate awareness of their own feelings and biases and recognize any personal reactions which may be detrimental to the physician-patient relationship

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, concise, accurate and appropriate records of clinical encounters and plans

5.1.1. Record data collected from patients, laboratory tests and radiological studies accurately and succinctly

5.1.2. Communicate opinions clearly in the form of consultation letters and telephone calls to family physicians, other consultant specialists and allied health professionals

5.2. Present oral reports of clinical encounters and plans

5.2.1. Explain clearly and concisely:

5.2.1.1. The diagnosis and management plans for urological problems in a way that motivates and facilitates patients' willing participation

5.2.1.2. Management plans to other health care personnel in a way that ensures their effective participation

5.2.1.3. Steps necessary for problem management when acting as a consultant for other physicians

5.3. Convey medical information appropriately to ensure safe transfer of care

5.4. Present medical information to the public or media about a medical issue
Collaborator

Definition:

As Collaborators, Pediatric Urology diplomates work effectively within a health care team to achieve optimal patient care.

Key and Enabling Competencies: Pediatric Urology diplomates are able to...

1. Participate effectively and appropriately in an interprofessional health care team

   1.1. Describe the specialist’s roles and responsibilities to other professionals
   1.2. Describe the roles and responsibilities of other professionals within the health care team
   1.3. Recognize and respect the diverse roles, responsibilities and competencies of other professionals in relation to their own
   1.4. Work with others to assess, plan, provide, and integrate care for individuals and groups of patients
   1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities
   1.6. Participate in interprofessional team meetings
   1.7. Enter into interdependent relationships with other professions for the provision of quality care
   1.8. Describe the principles of team dynamics
   1.9. Respect team ethics, including confidentiality, resource allocation, and professionalism
   1.10. Demonstrate leadership in a health care team, as appropriate

2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict

   2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
   2.2. Work with other professionals to prevent conflicts
   2.3. Employ collaborative negotiation to resolve conflicts
   2.4. Respect differences and address misunderstandings and limits of scope of practice in other professions
   2.5. Recognize one’s own differences, misunderstanding and limitations that may contribute to interprofessional tension
2.6. Reflect on interprofessional team function

Manager

**Definition:**

As Managers, Pediatric Urology diplomates are integral participants in health care organizations, organizing sustainable practices, making decisions concerning the allocation of resources, and contributing to the effectiveness of the health care system.

**Key and Enabling Competencies:** Pediatric Urology diplomates are able to...

1. **Participate in activities that contribute to the effectiveness of their health care organizations and systems**
   
   1.1. Work collaboratively with others in their organizations
   
   1.2. Participate in systemic quality process evaluation and improvement, including patient safety initiatives
   
   1.3. Describe the structure, function, and present scope of the health care system as it relates to Pediatric Urology, including the roles of physicians and allied health care providers.
   
   1.4. Describe principles of health care financing, including physician remuneration, budgeting, and organizational funding

2. **Manage their practice and career effectively**

   2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities, and personal life
   
   2.2. Manage a practice including finances and human resources
   
   2.3. Implement processes to ensure personal practice improvement
   
   2.4. Employ information technology appropriately for patient care and sustain this effort in light of new technologies and strategies i.e. adaptability

3. **Allocate finite health care resources appropriately**

   3.1. Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency, and access with optimal patient care
   
   3.1.1. Demonstrate knowledge of appropriate resource allocation for pediatric patients
   
   3.2. Apply evidence and management processes for cost-appropriate care
   
   3.2.1. Access appropriate urological diagnostic and therapeutic technology in a timely and efficient manner to benefit their patients
3.3. Organize a priority list for patients waiting surgery

4. Serve in administration and leadership roles

4.1. Chair or participate effectively in committees and meetings when necessary
4.2. Lead or implement change in health care for the betterment of children with genitourinary pathologies
4.3. Plan relevant elements of health care delivery, such as work schedules

Health Advocate

Definition:

As Health Advocates, Pediatric Urology diplomates use their expertise and influence responsibly to advance the health and well-being of individual patients, communities, and populations.

Key and Enabling Competencies: Pediatric Urology diplomates are able to...

1. Respond to individual patient health needs and issues as part of patient care

   1.1. Identify the health needs of an individual patient
   1.2. Identify opportunities for advocacy, health promotion, and disease prevention with individuals to whom they provide care
       1.2.1. Take advantage of opportunities to discuss lifestyle changes that impact health of children with urological anomalies.
   1.3. Demonstrate an appreciation of the possibility of competing interests between individual advocacy issues and the community at large

2. Respond to the health needs of the communities that they serve

   2.1. Describe the practice communities that they serve
   2.2. Identify opportunities for advocacy, health promotion, and disease prevention in the communities that they serve, and respond appropriately
       2.2.1. Demonstrate understanding of the role of community based patient support groups
   2.3. Demonstrate an appreciation of the possibility of competing interests between the communities served and other populations
3. **Identify the determinants of health for the populations that they serve**

   3.1. Identify the determinants of health of the population, including barriers to access to care and resources

   3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

4. **Promote the health of individual patients, communities, and populations**

   4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve

   4.2. Describe how public policy impacts on the health of the populations served

   4.3. Identify points of influence in the health care system and its structure

   4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity, and idealism

   4.5. Demonstrate an appreciation of the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper

   4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

       4.6.1. Demonstrate an understanding of the role and function of the Canadian Urological Association and other provincial and international urological societies such as the Pediatric Urology of Canada and Society of Pediatric Urology respectively.

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**Scholar**

**Definition:**

As Scholars, Pediatric Urology diplomates demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application, and translation of medical knowledge.

**Key and Enabling Competencies: Pediatric Urology diplomates are able to:**

1. **Maintain and enhance professional activities through ongoing learning**

   1.1. Describe the principles of maintenance of competence

       1.1.1. Describe the time commitment required for ongoing self study for the maintenance of competence
1.2. Describe the principles and strategies for implementing a personal knowledge management system
1.3. Recognize and reflect on learning issues in practice
1.4. Conduct personal practice audits
1.5. Pose an appropriate learning question
1.6. Access and interpret the relevant evidence
1.7. Integrate new learning into practice
1.8. Evaluate the impact of any change in practice
1.9. Document the learning process

2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions

2.1. Describe the principles of critical appraisal
2.2. Critically appraise retrieved evidence in order to address a clinical question
2.3. Integrate critical appraisal conclusions into clinical care

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others

3.1. Describe principles of learning relevant to medical education
3.2. Identify collaboratively the learning needs and desired learning outcomes of others
3.3. Select effective teaching strategies and content to facilitate others’ learning
3.4. Deliver effective lectures or presentations
3.5. Assess and reflect on teaching encounters
3.6. Provide effective feedback
3.7. Describe the principles of ethics with respect to teaching

4. Contribute to the development, dissemination, and translation of new knowledge and practices

4.1. Describe the principles of research and scholarly inquiry
4.2. Describe the principles of research ethics
   4.2.1. Demonstrate an understanding of the ethics of animal and human experimentation
   4.2.2. Demonstrate an ability to incorporate gender, cultural and ethnic perspectives in research methodology, data presentation and analysis

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4.3. Pose a scholarly question
   4.3.1. Formulate a scientific research study to answer a clinical question
4.4. Conduct a systematic search for evidence
   4.4.1. Demonstrate the use of databases for literature searches and reviews
4.5. Select and apply appropriate methods to address the question
4.6. Disseminate the findings of a study
4.7. Participate in a scholarly research, quality assurance, or educational project
   relevant to Urology, demonstrating primary responsibility for at least one of the
   following elements of the project:
   4.7.1. Development of the hypothesis, which must include a comprehensive
           literature review
   4.7.2. Development of the protocol for the scholarly project
   4.7.3. Development of the research ethics proposal
   4.7.4. Interpretation and synthesis of the results

Professional

Definition:

As Professionals, Pediatric Urology diplomates are committed to the health and well-being of
individuals and society through ethical practice, profession-led regulation, and high personal
standards of behavior.

Key and Enabling Competencies: Pediatric Urology diplomates are able to...

1. Demonstrate a commitment to their patients, profession, and society through
   ethical practice

   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity,
        commitment, compassion, respect, and altruism
       1.1.1. Demonstrate personal responsibility to patients by availability and
              confidentiality
   1.2. Demonstrate a commitment to delivering the highest quality care and maintenance
        of competence
       1.2.1. Demonstrate adherence to the best available practice, including referral to
              other qualified practitioners when appropriate
       1.2.2. Demonstrate meticulous accuracy in reporting clinical and scientific information
   1.3. Recognize and appropriately respond to ethical issues encountered in practice
   1.4. Recognize and manage real or perceived conflicts of interest

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1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law

1.6. Maintain appropriate boundaries with patients

2. **Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation**

2.1. Demonstrate knowledge and an understanding of professional, legal, and ethical codes of practice

2.2. Fulfill the regulatory and legal obligations required of current practice

2.2.1. Demonstrate knowledge of the ethical issues of human organ procurement for the purposes of transplantation

2.2.2. Demonstrate a working knowledge of provincial and federal laws and regulations related to the practice of medicine in general and Pediatric Urology in particular

2.2.3. Demonstrate an understanding and appreciation for patients' legal rights in matters related to informed consent, delegated/parental consent and informed decision making

2.3. Demonstrate accountability to professional regulatory bodies

2.4. Recognize and respond appropriately to others’ unprofessional behaviors in practice

2.4.1. Demonstrate an understanding of medical protective procedures and the role of the Canadian Medical Protective Association in areas of patient-physician and hospital-physician dispute

2.5. Participate in peer review

3. **Demonstrate a commitment to physician health and sustainable practice**

3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice

3.2. Strive to heighten personal and professional awareness and insight

3.3. Recognize other professionals in need and respond appropriately

3.4. Utilize a mentoring relationship with a colleague or faculty member for the discussion of personal and professional goals, conflicts and stresses, as they arise
REQUIRED TRAINING EXPERIENCES

An AFC Pediatric Urology diplomate should be trained to the following requirements:

Clinical Responsibilities:

To participate in all clinical activities within the Division including:

a. Admit patients, record their medical history and physical examination in clinic and ward environment

b. Assist in the operating room or operate as the principal surgeon under supervision of the attending surgeon.

c. Consult on patients on medical wards, ICUs, outpatient clinics, and emergency department.

d. Make rounds in the various hospital units as assigned, order appropriate medications, tests and other forms of therapy required for continued care, write a daily progress note in the chart where appropriate, and participate in discharge planning.

Prospective Diplomates are expected to complete clinical expectations of training. During the final month of their appointment leaves are not usually granted. Clinical requirements of training are expected to be accomplished within 2 year period. Successful clinical progress and competency will be assessed in an ongoing fashion by a combination of direct operative supervision, regular meetings for feedback and monitoring of the learning contract set at the time of initial appointment. The learning contract will include a set of milestones that the prospective Diplomate and faculty need to meet and accomplish throughout the training period. If a trainee is deemed not ready to graduate then a set of remediation steps will be instituted pending the necessary skills and knowledge. Throughout the training phase, summative feedback, objective testing with access to simulation and skills acquisition will be available for trainee’s skills and knowledge development.

e. Must demonstrate a collaborative ability with residents, other health care providers and other clinical fellows.
f. Any additions or deletions to this list are at the discretion of the supervisor and should be made in this document before sending to the prospective fellow.

Academic Responsibilities:

To participate in all academic activities including:

a. Presentations of patients at weekly Divisional Rounds.

b. Present cases and discuss their peri-operative course at Morbidity and Mortality Rounds.

c. Review topics assigned for discussion at didactic rounds.

d. Participate in the supervision of interns and residents

e. When deemed appropriate, prospective Diplomates will be responsible for some teaching of undergraduate medical students.

f. Undertake one or more clinical research projects leading to presentation and publication.

g. Any additions or deletions to this list are at the discretion of the supervisor and should be made in this document before sending to the prospective Diplomate.
RECOMMENDED TRAINING EXPERIENCES

Note: This section should outline the suggested standards for curriculum elements.

The AFC trainee in Pediatric Urology should:

1. Complete a dedicated experience in pediatric medicine or nephrology or any other service related to pediatric Urology at the discretion of the trainee in consultation with the program director and faculty. This may include an elective experience in pediatric endocrinology, genetics, oncology, multi-organ transplantation, plastic surgery, pediatric surgery, and/or adolescent gynecology.

2. Disseminate new knowledge in the field of Pediatric Urology through publications and presentations at meetings.

3. Participate in quality improvement projects or research that improve delivery of care and outcome of children with urogenital conditions.

This document is to be reviewed by the AFC (Sub)Committee in [INSERT NAME OF DISCIPLINE] by [INSERT DATE]

[Reviewed/Revised/etc.] – [AFC Committee/Specialty Standards Review Committee, etc.] – [month year]

Template document:

Editorial revisions – Office of Education – December 2012

Reviewed and revised – Clinician Educator – January 2013

Approved – Office of Education – February 2013

Revised – Office of Education – August 2013

Revised – Office of Specialty Education – December 2013

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From: The Executive of Pediatric Urologists of Canada

President: John-Paul Capolicchio MD, FRCSC

Secretary/Treasurer: Dawn MacLellan MD, FRCSC

Associate Director, Specialty Standards, Policy and Development
Office of Education
The Royal College of Physicians and Surgeons of Canada (RCPSC)
c/o Administrator, Committee on Specialties (COS)
774 Echo Drive
Ottawa, ON K1S 5N8

September 3, 2015

Dear Associate Director, Specialty Standards, Policy and Development,

As the group executive, we are writing on behalf of the Pediatric Urologists of Canada to support the application for an Area of Focused Competence (diploma) in Pediatric Urology. The Pediatric Urologists of Canada is a group of approximately 40 individuals with an interest in pediatric urology. The purpose of the group is to encourage the study, to improve the practice, to elevate the standards, and to further the advancement of Pediatric Urology in Canada.

At our most recent Annual Meeting in June 2015 we discussed the possibility of applying for an Area of Focused Competence (diploma) in Pediatric Urology. The membership voted in agreement with proceeding with this application. The group members felt that an area of focused competence (diploma) would facilitate national standards for training and specialist competence and thus improve patient care. Specifically, it would also permit fellows trained in Pediatric Urology at The Hospital for Sick Children to acquire nationally and internationally recognized credentials.

The group unanimously voted to move forward with the application for an Area of Focused Competence (diploma) in Pediatric Urology and to support funding the application. Please find the application fee in the amount of $14,000 enclosed.

Sincerely

John-Paul Capolicchio MD FRCSC
Dawn MacLellan MD FRCSC

President, Pediatric Urologists of Canada
Secretary/Treasurer, Pediatric Urologists of Canada
November 2, 2016

Walida Farhat
University of Toronto, Pediatric Urologist
Fellowship Program Director
Associate Surgeon and Chief of Education
Surgical Undergraduate Coordinator, Sick Kids Hospital
Toronto, ON

Dear Dr. Farhat,

The Canadian Urologicai Association is aware that the Division of Urology at the Hospital for Sick Children, University of Toronto has applied for accreditation through the Royal College for the AFC (Diploma) Program. We understand that this endeavor has been supported by the Pediatric Urologists of Canada (PUC) as well as the Urology Pediatric Subcommittees of the Royal College. This endeavor has also been approved and supported by the Specialty Training Committee of the Canadian Urologicai Association (Committee Chair Andrew MacNeilly). This would confirm the endorsement of the Canadian Urologicai Association. Both myself as president of the CUA, Dr. Hassan Razvi as the secretary and Dr. Mike Leonard, past president of the CUA personally endorse this application.

Yours Sincerely,

J. Curtis Nickel, MD, FRCSC
Professor of Urology, Queen’s University
Tier 1 Canada Research Chair in Urology
President Canadian Urologicai Association
Montréal, September 21, 2015

Dr. Walid A. Farhat  
Division of Urology, Room M299  
The Hospital for Sick Children  
555 University Avenue  
Toronto, Ontario M5G1X8


Re: Application for recognition of Pediatric Urology as an Area of Focused Competence by the Royal College

Dear Dr. Farhat

As Chair of the Royal College of Physicians and Surgeons (RCPSC) Specialty Committee in Pediatrics, I have been informed of the application being made for the recognition of Pediatric Urology as an Area of Focused Competence (AFC).

Infants, children and adolescents with urogenital pathologies often require highly specialized tertiary and quaternary care, both in the context of congenital anomalies and lesions which may evolve and cause significant impairment of renal function over time. Knowledge of the embryology, anatomy and development of the urogenital system, as well as the technical skills required in treating such young patients, may exceed that of the average practicing urologist in Canada. Urologists specializing in Pediatric Urology have the knowledge and skill sets that promote a seamless transition between each phase of care, and they have access to the resources needed to attain optimal patient outcomes. They work closely with pediatricians, pediatric nephrologists, and various health care professionals.

It is important that residents interested in developing further competency in this field in Canada have access to a training program that is accredited by the RCPSC. This would ensure adherence to uniformly high educational standards for selection of trainees, curriculum development, educational oversight, evaluation and ongoing program accreditation. The ultimate goal is to ensure that Canadian children and adolescents will have access to optimal care and advances in research in the field of Pediatric Urology.

I agree that the base specialty of Urology is the only appropriate entry specialty for this AFC. It will be important for the Specialty Committee in Urology to have the opportunity to review the submission and provide input. The committee members are best placed to assess issues such as overlap with their own training programs. One question that could legitimately be raised is whether Pediatric Urology could more appropriately be considered a sub-specialty of Urology, rather than an area of Focused Competence.
I recognize the time and effort that has gone into the preparation of this AFC submission. I agree that there are benefits to acknowledging this specific field of practice and providing structured training sanctioned by the Royal College of Physicians and Surgeons of Canada.

Yours sincerely,

Catherine Farrell, MD, FRCPC
Chair, Specialty Committee in Pediatrics
Royal College of Physicians and Surgeons of Canada
Dr Walid Farhat Pediatric Urology Fellowship Program Director

Sickkids Hospital

Toronto Ontario

Sept 28th, 2015

Re: Application for an AFC diploma in Pediatric Urology

Dear Walid:

Thank you for requesting my input as Chair of the Urology Specialty Committee regarding your application to establish a Royal College AFC diploma in Pediatric Urology. I have now had an opportunity to review the application and share it with the other 18 members of the specialty committee across Canada. To date, 13 members have responded with comments, and the overwhelming sentiment is that this application should be endorsed by the Urology Specialty Committee for several reasons. I support this opinion of the membership.

Although there are some philosophical concerns about what AFC’s in general could mean to our specialty in the future if multiple special interest groups decide to break down urology into various factions, all respondents agreed that Pediatric Urology is the one area of our specialty that is clearly separate from general urology in terms of requisite knowledge, and surgical skills, and thus deserving of an AFC diploma. The feeling is that creation of an AFC diploma will improve patient care, standardize training and allow for Canadian accreditation of Canadian fellowship programs in this domain. As you know, accreditation of Canadian Pediatric Urology fellowship programs has become problematic because currently Pediatric Urology is not recognized by the Royal College, and American accrediting bodies do not want to assess Canadian programs. An AFC diploma in Pediatric Urology would solve this problem.

Below are excerpted comments from the Urology Specialty Committee regarding the AFC application. As you can see they are uniformly positive.

In summary, I think the application for an AFC diploma in Pediatric Urology is timely, appropriate and well thought out. I support it completely.

Sincerely,

Andrew E MacNeilly MD FRCS C FAAP

Chair, Royal College Urology Specialty Committee
Excerpted comments from Urology Specialty Committee membership

Hi Andrew

I certainly agree with this initiative to have a diploma for a focussed competence in Pediatric Urology. I applaud the work done by others to articulate the rational for the diploma and the means by which this would be achieved. This will give a clear benchmark on the training expected of residents considering a career focussed on Pediatric Urology. This would also give administrators a concrete measure of training when considering a candidate for a position in Pediatric Urology in their jurisdiction.

From personal experience the adult urologist in this jurisdiction have become progressively more insecure about dealing with the pediatric urologic problems even the more basic pathologies. Parents expectations have also increased for their child to be managed by someone with a focus in pediatric urology care.

Andrew,

Thanks. For pediatric urology specifically the idea of an AFC makes sense for several reasons:
1. It is a well-defined area of urologic care.
2. It would be a clear supplement to general urologic training.
3. It has unique pathologies that do not overlap with other areas of urology.

I have no concerns. It would have an overall positive impact on patient quality of care. The negative might be an over reliance on major academic centres on all aspects of pediatric urologic care. I.e. Every single pediatric urology problem no matter how general may gravitate to the major academic center. Can this volume be accommodated should this occur?

Andrew,

I have no concerns and it is perfectly reasonable for Paediatric Urologists to have this designation.

This diploma will mean three things:

1. Anyone who runs a paediatric urology fellowship will have to be aware of the Royal College's objectives of training and will have to set up methods to evaluate the trainees to satisfy those objectives (lots of portfolios!) ... Otherwise the trainee won't get the royal college diploma.
2. Trainees may want to choose a fellowship that is aware of the royal college objectives of training.
3. The current group of practicing paediatric urologists may want to apply through the Practice Eligibility Route to obtain the diploma (also lots of portfolios!).

I would fully support this initiative. I think an AFC in pediatric urology is definitely a worthwhile endeavour.

I would fully support the concept of AFC in general and its application to pediatric urology. Credentialing an area of urological subspecialty is a step forward and meets a need.
Hi all,

Sorry for the delay in responding - I believe this is a good document, particularly for paediatrics as they have a shifting landscape vis-a-vis procedures, best practice guidelines, highly variable residency exposure etc.

Hi Andrew,

I agree with the APC diploma for pediatric urology especially to officialize the Toronto Pediatric Urology Fellowship.
August 31, 2015

Royal College of Physicians and Surgeons of Canada
774 Echo Drive
Ottawa, ON
K1S 5N8

RE: Area of Focused Competence, Paediatric Urology

Dear Royal College of Physicians and Surgeons, AFC Committee Members,

The Division of Pediatric Urology at the University of Toronto is one of the largest and oldest known in North America, and indeed throughout the world. Established in 1963, it is considered to be one of the North American pioneers of Paediatric Urology training programs. The Division members serve well over 10,000 patients each year, performing between 1,500 and 2,000 procedures and operations per year – making it one of the busiest surgical specialties at SickKids and the country. The Division of Paediatric Urology has evolved to become a multidisciplinary team that includes urologists, nurses, social workers, child life specialists and psychologists.

In addition to the clinical service it provides, the Division is also a world leader in many key research areas including bench or basic science as well as clinical and translational research. The Paediatric Urology Division at SickKids is considered the jewel in the crown of the Urology training programs. It often hosts observers from all corners of the globe, creating a fertile learning atmosphere that continues to build relationships worldwide. Furthermore, the faculty members are routinely invited to share their expertise and innovations at major international meetings and symposia and to teach surgery in less advanced countries.

On the training facet, the Division of Urology at Sickkids, University of Toronto is a competitive, world-acclaimed fellowship program that trains North American and international urologists to specifically subspecialize in paediatric urology. It is the only North American program outside of the US, where “fully trained” urologists undertake an additional two years of subspecialty fellowship training. Upon the completion of this program, these trainees become eligible for the American Board of Urology Certificate of Added Qualification in Paediatric Urology. In addition, the Division trains residents and medical students from the University of Toronto, and many other institutions as well.
In brief, the Paediatric Urology Division at SickKids is a renowned tertiary and quaternary referral centre for the most complex, congenital urological defects in children and a resource not only to Toronto, but to the rest of Canada and the world. It is our pleasure to support the upcoming application of the Paediatric Urology subspecialty for a Diploma in an area of focus competence in this field. The specialty in Paediatric Urology has advanced considerably in terms of conditions treated, and expertise required over the past decade. In our opinion, the time is right for this group to be considered for an area of focused competence. This group has established Pan-Canadian National Standards for Postgraduate Education. In addition, a Diploma of Area Focus Competence would encourage trainees to apply from across the country, and throughout North America.

We do hope that you would look favorably upon their application.

Sincerely,

James T. Rutka, MD, PhD, FRCSC, FACS, FAAP, FAANS
RS McLaughlin Professor and Chair
Department of Surgery, University of Toronto

Neil E. Fleshner, MD, MPH, FRCSC
Chair, Division of Urology
Department of Surgery, University of Toronto

Christopher Caldarone MD, FRCSC
Professor and Chair
Division of Cardiovascular Surgery, University of Toronto
Surgeon-in-Chief, Hospital for Sick Children

JTR/nl