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WILLIAM REGINOLD AND JENNIFER KWAN

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From the Editors

Dear Readers,

Historically, physicians have shied away from taking comprehensive sexual histories during patient medical interviews. This attitude of shyness has been perpetuated for decades. Even now, as this paradigm is changing, some medical students still cringe at the thought of asking these deeply personal questions to their patients despite their undeniable medical value. In this issue of the QMR, medical students face these tough topics head on by writing articles around the theme of sex and sexual health.

We begin with Sarah Luckett-Gatopoulos's (Class of 2014) article entitled "The Emperor's New Clothes." While we were busy studying for our exams last May, a painting by Kingston-based artist Margaret Sutherland was sparking controversy across Canada. Sarah offers her insight on the situation surrounding Sutherland's masterpiece featuring a nude Conservative Prime Minister Stephen Harper.

Next, think Freaky Friday, but with medical students and patients instead of a mother and daughter switch. Seth Climans (Class of 2014) puts the spotlight on medical students with his survey, "SEx ASAP Sexual History of Medical Students." Medical students are generally uncomfortable asking patients about their sexual history and oftentimes we neglect counseling patients on safe sex, but why does this happen? How does it feel to have these deeply personal questions asked of us? Find out how medical students measure up when the roles are reversed and we're asked to answer the SEx ASAP sexual history screening questions.

We then turn to a creative piece entitled "Examining the Precordium," where we get a glimpse of life as a medical student during an OSCE. Then, Ali Tafti (Class of 2015) and Aisha Ghare (Class of 2015) share their insightful commentary on sex work and abortion education, respectively. Finally, we finish off the issue with interviews with Queen's physicians from the OB/GYN and Urology disciplines.

Last but not least, we would like to thank the writers and reviewers for their contributions to this issue as well as the continued support provided by our faculty advisor, Dr. Jacalyn Duffin. Without all of you, the QMR would not be possible. Thank you and we hope you enjoy our fall issue.

Cheers,

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Seth Climans

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Editors in Chief

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NEWS



QMR News

COMPILED BY KATERINA PIZZUTO

THE EUTHANASIA DEBATE RESURFACES...

Gloria Taylor is a 64-year-old woman from British Columbia who has been battling amyotrophic lateral sclerosis (ALS) and has begun a plea to overturn the ban on physician-assisted suicide. This Supreme Court Ruling made by Judge Lynn Smith states that the current ban on euthanasia infringes on the Canadian Charter of Rights and Freedoms and thus, the court granted Gloria a constitution exemption. Gloria is now the first and only Canadian to have a legal exemption to the ban, but a 12-month suspension has been placed on the ruling to allow the government time to draft new legislation. To go ahead with the physician-assisted suicide, she must meet a number of requirements, including passing appropriate psychological testing, before the suicide is carried out.

INTERNATIONAL CONFERENCE ON PHYSICIAN HEALTH

This year, the International Conference on Physician Health was held in Montreal, on October 25th to 27th. This conference featured three keynote speakers, who led the discussion on physician satisfaction and stress reduction. Keynote speeches include:

"Finding meaning, balance and personal satisfaction in the practice of medicine," presented by Dr. Tait Shanafelt (Mayo Clinic)

"Mental health: recovery and resilience – leadership interventions" presented by Lt. Col. Stephane Grenier (Canadian Forces Officer)

"Bridging the gap between knowing and doing" presented by Dr. Richard Gunderman (University of Indiana)

For more information, please visit the CMA website.

BUDGET CUTS TARGET REFUGEE HEALTH CARE... WHAT'SNEXT?

The Immigration Minister Jason Kenney announced that the Conservative government plans to reduce health coverage for refugees who have entered Canada. The changes will only allow refugees to receive coverage in a medical emergency or if treatment is needed to prevent compromise to public health. This change has been met by an uproar from many Canadian doctors who claim it creates a system where health care is no longer accessible or equal for all Canadians. The plan hopes to save the Conservative government \$20 million dollars a year, by providing refugees with sub-par access to health care and pharmaceutical coverage. Health Minister of Ontario, Deb Matthews, has urged the federal government to reverse this budget cut the prevent the creation of a tiered health care system.





Aesculapian Society: Year in Review

ver the last year, the Aesculapian Society (AS) has been hard at work. Looking back, here's a brief summary of the highlights from each elected AS executive member:

PRESIDENT: VINAY GARG

As AS President this past year, one of my major tasks was preparing for the accreditation of the Queen's Medical School. I attended many meetings with administration and liaised with the AS executive and the general medical student body to attend to all outstanding concerns prior to the accreditation visit. We ensured that our medical school was able to provide a high quality learning environment for all of our medical students. Overall, the accreditation committee was thoroughly impressed with our school.

VP EXTERNAL: FAHIMA DOSSA (SR) & SONIYA SHARMA(JR)

This past year was an exciting year for the VP External Portfolio, especially given the negotiations between the Ontario Medical Association (OMA) and the McGuinty Government. Our role involved representing Queen's medical students on the Ontario Medical Students Association (OMSA) and the Canadian Federation of Medical Students (CFMS). As well, we organized the Ontario Medical Students Weekend (OMSW) trip for Queen's students. Last year, OMSW took place in Sudbury, ON and was hosted by the Northern Ontario School of Medicine (NOSM). Queen's students also had the opportunity to engage in advocacy by attending the CFMS Lobby Day in Ottawa, ON and OMSA's Leadership and Lobby Day weekend in Toronto, ON. On a local scale, the CFMS political advocacy committee organized a "Health Care Transformation" forum, with guest speaker Dr. Jeff Turnbull, past president of the CMA. Fahima took the initiative of creating institutional memory for the Aesculapian Society which will aid councils to come. All in all, it was a great year and we really enjoyed serving as your VP Externals!

VPINTERNALAFFAIRS: DIANAMAGEE

This past year, I worked on restructuring the Queen's Mentorship program to ensure that each group of medical students has a worthwhile experience. I planned a Trivia Night in February 2012, which was enjoyed by all who attended! I also collaborated with the Undergraduate Medical Education (UGME) office to ensure that students received continued support (via reimbursements) for purchasing UpToDate, a popular evidence-based, peer reviewed information tool. Overall, it was a pleasure working with the entire AS executive team to ensure that the concerns of the student body were addressed and remedied.

VP FINANCE & TREASURER: DERRICK TAM & CHENGZHOU

It's been a busy year for the VP Finance Portfolio. With the help of the Medtech officer, Paypal was introduced as a form of payment and was used to streamline the sale of many items (e.g. Goodlife memberships, fourth year gala ticket sales). Working with the Social representatives and the Information officer, we brought a new line of clothing to AS members from classic t-shirts in an array of new and bright colours to our stylish windbreaker featuring the AS logo. In addition, we continued to improve accountability through the implementation of an online cheque requisition to ensure that your student fees are well spent.

VPACADEMICAFFAIRS: BOSCO LAW

As your VP of Academic Affairs, I had the honour of meeting with the accreditation survey team from the Association of Faculties of Medicine of Canada (AFMC) and Liaison Committee on Medical Education (LCME) this past May to relay to them the impact that the new curriculum changes have had on students. I also had the pleasure of inviting Dr. Mike Evans as the guest speaker to our Annual HG Kelly Lectureship this September. Thank you for allowing me to represent your voice at the academic committees of the School of Medicine this past year.

GLOBAL HEALTH LIASON: PRIYA JINDAL (SR) & CHANTALLEBRACE (JR)

The Global and Community Health Portfolio facilitated education and advocacy by coordinating a weekly speaker series and UN awareness day events. We also organized the Global Health Gala fundraiser in support of a local charity, as well as the awardwinning Health and Human Rights Conference in the fall. Last year the conference welcomed over 300 participants to learn from Ilana Landberg-Lewis, amongst other speakers. We also liaised with student groups and organizations in order to foster lasting relationships with the local community.

STUDENT INITIATIVES LIASON: SHELLYXU

As the SIL, my job is to be a resource of information to the student interest groups and to represent them on the AS council. I am also responsible for maintaining the calendar of student events on qmed. ca. This year was a busy year as a group of students and I worked together to develop a clubs policy which would officially recognize student interest groups under the AS umbrella and promote the creation of non-academic interest groups. In addition, I am in the process of working with the UGME to secure dedicated funding towards both academic and non-academic interest groups. Finally, group leaders can look forward to a more accessible and streamlined process with the application for Dean's letter recognition next year.

ALMA MATER SOCIETY REPRESENTATIVES: JAMES SIMPSON & RICHARD VELDHOEN

This past year, we represented the Aesculapian Society (AS) on the Alma Matter Society (AMS), which is the Queen's University student government. We attended biweekly AMS meetings, prepared reports for both the AS and the AMS, and represented



medical student interests to the broader Queen's community. Additionally, our role as AMS representative is now incorporating a focus on interprofessionalism to foster relationships between medical and other healthcare students.

SENATOR: JULIANNA SIENNA

This year was a busy one on the Queen's University Senate. As AS Senator, I participated in discussions regarding changes to the undergraduate grading system, deliberations on the policy for suspension of admissions to academic programs at Queen's, and the ratification of a new Queen's wide strategic plan.

ATHLETIC STICKS (MEN'S AND WOMEN'S): RYAN FITZPATRICK & RENEE FARRELL

Athletics organized a brand new Healthy Eating Event, which was funded by a Professional Association of Internes and Residents of Ontario (PAIRO) grant. As well, we organized basketball, squash and dodgeball tournaments, hosted a ski trip attended by more than 50 first and second-year students and encouraged participation in the Queen's BEWIC sports days (a two-day marathon intramural sports tournament), MedGames and intramurals to maximize athletic participation for all interests

One of the major changes was updating Letter M's which have been a long standing tradition of recognizing participation and leadership in athletics within Queen's Medicine. Letter Ms will now be acknowledged by a plaque with 3 tiers: Junior Gael (top 25% of the graduating class), Senior Gael (top 10% of graduating class) and Golden Gael (top 5% of graduating class), and given out to fourth year medical students. Please visit qmed.ca/athletics for more info.

SOCIAL REPRESENTATIVE: SARAH FELDER

The social representative is responsible for organizing social events for all medical students, including the annual Aesculapian Society formal. In this role, I worked with class representatives to coordinate social events among medical students and with other professional and healthcare students, including the physical therapy, occupational therapy, nursing, law, and MBA students.

INFORMATION OFFICER: MINATOHIDI

This past year, my main role on the AS Council was to record minutes during meetings and to ensure that these notes are available to all members of the Aesculapian Society—this includes you! To keep up-to-date on AS decisions, check the AS Council community on MedTech.

MEDTECH OFFICER: YAN SIM

My official position is to manage the various websites and communities for all medical students here at Queen's. I know it sound super dry, but sometimes I found it kind of interesting. I never really had much experience setting up online clothing sales, ticket sales and class elections, but it was pretty easy to learn. This past year, my job included resolving major technical issues, facilitating the online needs of the other members on council and overseeing the activities of all Class Technical Representatives to ensure podcasting was up-to-date and that everything was running smoothly.

CHIEFELECTORAL OFFICER/SPEAKER: CALVIN LO

This year has been a blast. I coordinated the constitution review, which was voted for at the Annual General Meeting, chaired the bi-weekly AS meetings, and set up the annual class and AS council elections. I want to thank all members of the AS for their valuable input on the constitution review, and thanks for keeping our meetings short, sweet and productive!

FIRST YEAR PRESIDENT: BEN FRID

As Class President, I headed the 2015 Class Council, which had a very successful year promoting community within the medical school and conducting successful charity fundraisers. In addition to the traditional responsibilities of hosting interviewees in the Spring and welcoming the Class of 2016 in the fall through orientation week, we raised money for Boys and Girls Club, participated in Movember for Prostate Cancer awareness and fundraising, and hosted a charity hockey game with the 2014s against the 2013 class for the Canadian Cancer Society (2013s—consider this your official demand for a rematch!). Finally, we built bridges with KGH, involving medical students in their annual "Stop! Clean Your Hands Day" for the first time ever, a partnership we hope to continue to grow in the coming year. All in all, it's been a great year, and we're excited to build on our achievements in the coming school year.

SECOND YEAR PRESIDENT: TRACYALLDRED

This past year was sensational with regular athletics and social events bringing the 2014s together. Medical Variety Night was definitely one of the year's highlights. It showcased the many talents of the 2014 performers, organizers, and behind-the-scenes crew. Pot lucks and Secret Santas carried us through to the 1/2 MD party, which brought everyone together for an evening of laughs and treats. Finally, we ended the year with a shopping trip of the best variety: gifts for the entire class, which were revealed this September!

THIRD YEAR PRESIDENTS: AMANDA ABATE & ALEXANDER SUMMERS

The past year was an exciting one for the 2013s. The transition to clerkship has kept us busy here in Kingston and the surrounding region, as well as all over the country! We are looking forward to coming back together this coming November for core clinical teaching. It will be an opportunity to reconnect, plan for the class gift, take a class photo or two, and obviously have some fun!

FEATURE



The Emperor's New Clothes

BY SARAH LUCKETT-GATOPOULOS

n Hans Christian Andersen's telling of The Emperor's New Clothes, two weavers promise the vain Emperor La magnificent suit, made from the finest fabric, and invisible to the stupid and the incompetent. The Emperor himself could not see the garments forming as the weavers meticulously measured, sewed, and pieced together his new clothes, but said nothing for fear of revealing his incompetence. When he debuts his new suit in front of his subjects, each fears revealing his own incompetence and says nothing about the Emperor's nakedness, until a child pipes up with the embarrassing revelation that the Emperor is wearing nothing at all. He's been swindled by the weavers and undermined by his own conceit. The story is either a morality tale about not appearing naked in front of children (and is that really such a terrible message?), or a cautionary discourse on the dangers of pride and intellectual vanity.

This spring, Kingston-based artist Margaret Sutherland revealed Emperor Haute Couture, a not-so-subtle translation of the classic tale to oil on canvas that also references Manet's 1863 impressionist Olympia [1]. Sutherland's painting depicts Conservative Prime Minister Stephen Harper reclined on a chaise lounge, a slightly smug smile on his lips, surrounded by men in business suits. Terrier at his feet, he is served Tim Horton's coffee on a porcelain platter by a woman in business attire.

Harper's people responded to the unveiling with uncharacteristic good humour; spokesman Andrew MacDougall reportedly tweeted, "On the Sutherland painting: we're not impressed. Everyone knows the PM is a cat person," referring to the canine companion with whom Harper appears [2].

The Globe and Mail quoted Liberal MP Scott Brison as saying, "This is one case where I think we really do need a Conservative cover-up. I guess you could say in this painting it's quite obvious that the Prime Minister has very little to hide." [2]

But while political players responded glibly, Sutherland's painting sparked considerable public controversy, particularly among Kingston citizens. A number of local and national news sites hosted commentary on the painting, which was variously described as disrespectful, embarrassing, and even flattering (several have noted that the PM is depicted with a more slender and toned physique than he is believed to actually have). The sheer number of comments withheld or deleted by the moderators of popular news sites intimates the polarising effect of the pseudo-portrait (Harper did not pose for it). Some Kingston citizens were apparently offended when the painting was displayed in a library room typically used for children's recitals, and the library agreed to cover the painting when children's programming was hosted [2].

This painting isn't, however, about ministerial genitalia, though that has become the centre of much of the public debate. The business-suited woman serving coffee to Harper - the only woman pictured - symbolises Sutherland's assessment of the status of women in the federal cabinet at the time of painting [3]. She notes that in early 2011, the few women in high profile positions within the cabinet were performing poorly and perhaps chosen for reasons other than their political effectiveness; she points to former-Conservative Helena Guergis, who was forced to resign from the cabinet and from the Conservative party amidst allegations of poor conduct and an RCMP investigation. The Tim Horton's coffee served on a china plate is equally incisive symbolism, and as often overlooked in much of the public discussion of the painting. In 2009, Harper opted to miss a meeting of the United Nations, during which US Present Barack Obama addressed the General Assembly, in favour of a photo opportunity at the Tim Horton's plant in Oakville, Ontario [4]. In discussing the relevance of the coffee and its serving platter, Sutherland describes the illusory nature of Harper's chosen optics; he has gone to extremes in painting himself as the common Canadian (the coffee), yet holds himself separate (the china plate) [4].

Dr. Jacalyn Duffin of Queen's appreciates the powerful double satire on Manet and on Andersen's tale, calling the painting "witty" [5]. Asked about the painting, she describes it as "...a light-hearted yet powerful political statement on the government's lack of support for culture – and it came in the form of a good painting." In an attempt to buy the painting for fear that it would be hidden or destroyed, Dr. Duffin contacted several friends at Queen's over the May long weekend [5]. Dr. Duffin's fears may be well-founded, based on letters to the Kingston Whig Standard and Globe and Mail, which she describes as "frightening; for their humourless intolerance, for how much they did not get the point, and for how much they seemed to think censorship was appropriate" [5].

Despite quick replies from friends and colleagues, and



an encouraging commitment to purchasing the painting, Duffin's group was not able to secure the painting – it was sold the same weekend amidst a flurry of offers [6]. The painting's new owner reportedly wishes to remain anonymous [7].

Andersen ends his telling of the Emperor's tale with his subjects joining in with the child who cries foul – of course, the Emperor is wearing no clothes! He learns a lesson about vanity and pride. Yet with controversy continuing to swirl over Emperor Haute Couture, Sutherland's story thus far has been less encouraging.

Sutherland's painting can be viewed at http://maggiethered.com/.

References:

1. Nude' Stephen Harper painting causes a stir. The Globe and Mail web site. http://www.theglobeandmail.com/news/politics/nude-stephen-harper-painting-causes-a-stir/article4186759/. Accessed June 01, 2012.

2. And now, a nude painting of Stephen Harper. OpenFile. http:// www.openfile.ca/toronto/blog/2012/and-now-nude-paintingstephen-harper. Accessed June 01, 2012

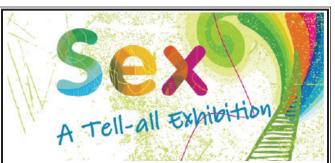
3. Sutherland, Margaret. Personal communication, 2012

4.Doughnuts over diplomacy. Thestar.com. http://www.thestar. com/business/companies/timhortons/article/700134--doughnutsover-diplomacy. Accessed June 12, 2012

5. Duffin, Jacalyn. Personal communication, 2012

6.Nude Harper painting sells for \$5000. CBC News website. http:// www.cbc.ca/news/arts/story/2012/05/24/nude-harper-paintingsold.html. Accessed June 12, 2012.

7. Harper nude painting by Margaret Sutherland sold, artist shares her thoughts. Huffington Post. http://www.huffingtonpost. ca/2012/05/23/harper-nude-painting-sold-margaretsutherland_n_1540296.html. Accessed June 12, 2012.



Interesting tidbit: In addition to the controversial unveiling of Sutherland's "Emperor Haute Couture" painting earlier this spring at the Kingston Arts Council annual juried art show, another exhibit that attracted much attention was "Sex: a Tell-All Exhibition," a new sexeducation exhibit at the Canadian Museum of Science and Technology (Ottawa, ON), which opened in May 2012. It was designed with advice from citizens, teachers, and health professionals, but much of its explicit content has been harshly criticized.

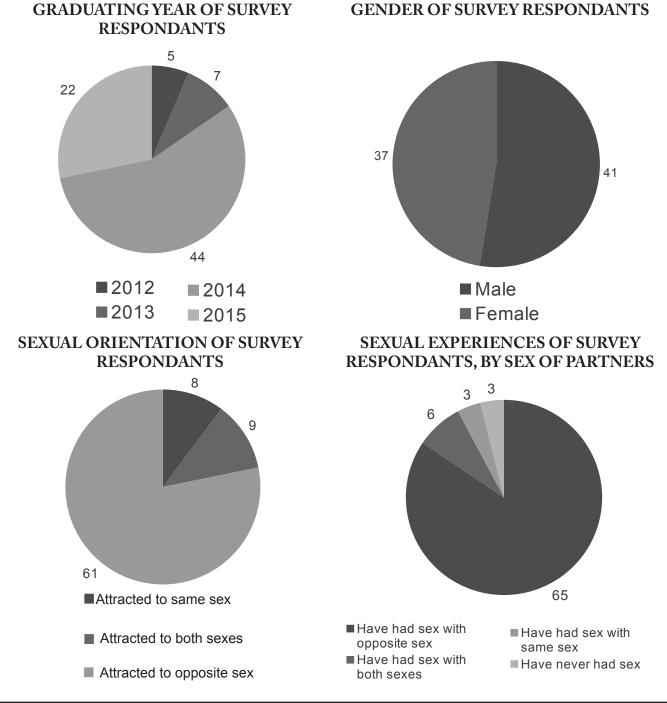




SEX ASAP A SEXUAL HISTORY OF MEDICAL STUDENTS

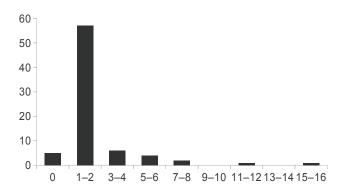
BY SETH CLIMANS

In May of 2012, four-hundred Queen's medical students were emailed and invited to participate in an anonymous survey of their sexual habits. Seventy-eight students responded. Participants answered sexual history questions (developed based on the SEx ASAP mnemonic) that medical students are taught to ask their patients during a medical interview. The results are presented here.

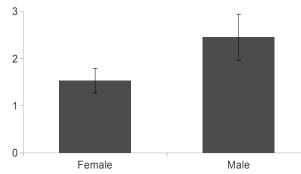




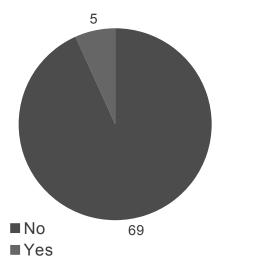
SURVEY RESPONDANTS' SEXUAL PART-NERS IN PAST YEAR



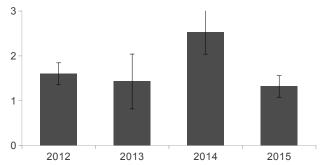
NUMBER OF SURVEY RESPONDANTS' SEXUAL PARTNERS IN PAST YEAR, BY GENDER



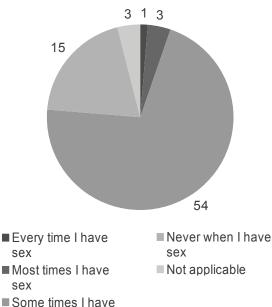
WHETHER SURVEY RESPONDANTS HAVE HAD A SEXUALLY-TRANSMITTED INFECTION



NUMBER OF SURVEY RESPONDANTS' SEXUAL PARTNERS IN PAST YEAR, BY GRADUATING YEAR



SURVEY RESPONDANTS' USE OF STI-PREVENTING DEVICES



Quintessentially Canadian

sex

"Canoe?" you said. Now, I'm wet.

- Emily Swinkin (Class of 2014)

Six-word sex story contest winner

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Examining the Precordium

BY SARAH LUCKETT-GATOPOULOS

Please exit the station,' the disembodied Voice of OSCE Authority intones, and a classmate bursts through the exam room door. She's flushed, sweating, and gasping like she's just finished her first marathon. I smile, perhaps a bit arrogantly; I'm not scared of the mini-OSCE. Disgusted, she shakes her head and pushes past me. As she yanks off her ill-fitting white jacket, I note the dark, spreading dampness under each arm.

'Please read the stem,' the Voice pipes through the speakers. I flip open the question stem; I'm confident I know what will be under the flap, but I'm told it's good practice to make sure you read the whole OSCE stem carefully every time.

This patient has presented to clinic with chest pain.

Please perform a focused history and precordial examination.

I imagine that the purpose of the mini-OSCE is dual: first, to give us experience with the painfully artificial format of the OSCE, and second to evaluate the limited physical examination and history-taking skills we have in our paltry diagnostic armamentaria. Today's mini-OSCE: chest pain history and examination of the precordium. The chest. Score another point for the medical profession's skill at obfuscation through the esoteric use of language.

I think I understand why we call it the precordium, though. The first chest I inspected for scars, deformities, and visible pulsations was sprinkled with the greyed hair of old age. At this sign of virility undermined by the passage of time, I felt like I'd walked in on someone getting changed in their bedroom. I panicked and handed off to the classmate next to me with the Oh-I'm-Sorry-Have-You-Had-A-Chance-To-See politeness that betrays first-year discomfort. As long as I continued to think of my clumsy ministrations as examinations of the chest, I was disturbed by the sense that I was looking at something private. Fortunately the precordium is sterile and asexual.

Waiting outside the exam room door, I tug at the hem of my short, white coat. I twist the bell of my stethoscope, moving my lips as I silently recite the steps of the precordial exam.

'Please enter the room,' the Voice requests, and with a squirt of sanitizer and a perfunctory knock, I do.

I'm instantly jolted out of my smug complacency.

My standardized patient is no more than 2 or 3 years older

than I am. I turn to the examiner, begging with my eyes for him to reveal this for the prank it surely must be, meant to test the mettle of the ill-equipped, inexperienced firstyear medical student. I silently beseech him to bring out the octogenarian standardized patient surely hiding in the cabinet or behind the examination table.

He looks at his Blackberry.

With all the confidence and ease I can muster, I smile and introduce myself: 'Hi, I'm a Terrified First Year Medical Student and I'll be staring uncomfortably at your exposed chest this afternoon.'

He smiles. I sit.

Once I get started, I find that the history-taking part of the exam isn't so hard, as long as I abandon the conversational tone I usually take and instead rattle off questions as if I am reading a page from Bates' Guide to Physical Exam and History Taking. I avoid eye contact. It seems a bit wooden and artificial, but I've seen residents and attendings do it, so I assume it is okay.

After seven minutes of rapid-fire questioning, the Voice interrupts and informs me that it is time to begin the physical exam. I explain the procedure to the standardized patient.

I ask him to hop up onto the bed, and immediately realize my mistake. Dr. Averns would be horrified.

'I meant...um...rather...' I try to correct myself but realize that my mouth is now too dry to form the words "examination table". I vow not to make the same mistake twice; I will not call the crumpled fabric at the end of the table a "sheet". I throw the "drape" haphazardly across the patient's legs.

I make a grand pantomime of inspection, looking for central and peripheral cyanosis, clubbing, and splinter haemorrhages. I auscultate for carotid bruits. I check pulses. I examine the imaginary jugular venous pressure, a cruel joke played on medical students by residents and attending physicians alike. I briefly uncover his legs and check for peripheral oedema. I offer to take a blood pressure reading, but the examiner tells me not to, without looking up from his Blackberry. I have run out of evasive manoeuvres.

I gesture awkwardly, indicating that he should un-knot the ties on his gown and lower it to his waist. I look away. I pray to all the gods in human history that when I look back again he



will have been replaced by a man three times his age.

I wait a long minute.

I look back. He's still there.

Head down, I shuffle a bit closer to the examination table. I announce to the standardised patient and the examiner that I am beginning my examination of the chest. The precordium, I remind myself. I say that I'm looking for visible movements, asymmetries, scars, and obvious pulsations.

'No you're not,' the examiner looks up from his Blackberry and informs me. I jump when I hear his voice. He's right, of course. I've been looking at my feet, reciting a prepared list of non-findings.

'Now I'll palpate for heaves and thrills.' Damn it! I've been told we're not supposed to say "thrills". Now he probably thinks I'm putting my hands all over his chest for kicks, I think as I place the ulnar surface of my right hand over each heart valve. With no idea what a heave or thrill would feel like, anyway, I mumble something about not "appreciating any thrills" and fumble for the apical pulse.

Reaching around my neck, I untangle my stethoscope from my sweat-drenched hair. Now all I can hear is the sound of my own blood rushing in my ears. I place the diaphragm over the aortic region. I look down at the patient. I slam my eyelids shut knowing that the sensory deprivation won't help me distinguish S1 from S2, but hoping that it will somehow transport me out of the exam room. I move my stethoscope through the pulmonic, tricuspid, and mitral regions switching to the bell and listening again over the mitral valve. I ask the standardized patient to roll into the left lateral decubitus position. I listen for a second time over the mitral valve, at the same time looking at the clock on the exam room wall. This must be over soon.

'Please exit the station,' the Blessed Voice chimes.

With a squirt of sanitizer, I push my way out the door, flushed and sweaty like I've just run my first marathon. The cool air of the hallway draws my awareness to the spreading dampness under each of my arms. The classmate waiting outside smiles, perhaps a bit arrogantly, but I'm too flustered to smile back. I shake my head and push past her.



OPINION



Sex Work is Real Work

BY ALI YAKHSHI TAFTI

Sex work is not illegal in Canada. There is no law that prohibits a person from selling sex, and no law that prohibits the purchase of sexual services. However, a series of provisions in the Criminal Code pertaining to prostitution do exist, which endanger sex workers and expose them to unnecessary risks. These include laws prohibiting the practice of sex workers in indoor establishments, the ability of sex workers to hire support staff for security, and the prohibition of public solicitation [1].

In March of this year, Ontario's Court of Appeal struck down the first two provisions, but decided to uphold the third to keep sex trade of the street and away from public view [2]. Kept hidden away in dark alleys, back door parlors, and private rooms, sex work in Canada has become an invisible issue to most Canadians. As Parliament mulls over this ruling and the case nears a Supreme Court appeal, a national dialogue looms requiring us to re-examine what sex work is and means in Canada today.

Take a moment and think about "sex work". How do you feel? What do you imagine? Too often the thought of sex work conjures up immediate images of street prostitution, pimps, and sex trade. Drug addiction, violence, and the spread of disease are usually not far, followed by one of two common emotional reactions: pity or disdain. But like stereotypes of many marginalized fringe groups, this generalization is based on a small but visible and publicized sub-group. Street prostitution accounts for a small minority of sex workers, and this is where drug addiction, assaults and diseases are likely the highest.

Most sex workers fall into the categories of escorts, strippers, dominatrices, porn actors, and online- and phone-sexproviders. These are the forgotten members of the 'sex work pyramid', those who form the base of the pyramid. They are political action committee members, student-athletes, caring daughters, or the helpful neighbors down the street. For them, sex work is just work. It may be a means of putting food on the table, paying off debt, living in a nicer neighborhood or a way to spend more time with their kids, but it's a calculated and educated professional decision. It isn't an adoption of a lifestyle. This is not to say that drug addiction, abuse, underaged workers, and sex slavery do not exist within the industry. They do exist but that they are only part of the picture. Sex workers are as varied as the Canadian mosaic that we hold so dearly. When these workers are stereotyped, though, institutions such as our health care system begin to endanger rather than protect people who most need protection.

As this issue inevitably reaches the steps of the Supreme Court of Canada, the national debate will heat up. The public needs to become well informed about the sex worker community: they are more than just the occasional headline. They are citizens from all walks of life with unique stories. They cannot be summed up by a few lines of policy. Before we judge and Parliament chisels its legislation, let us increase our understanding about our fellow citizens and their livelihood, however different it may or may not be from our own.

References

1. Barnett, Laura. Prostitution in Canada: International Obligations, Federal Law, and Provincial and Municipal Jurisdiction.Current Publications: Law, Justice and Rights. (PRB 03-30E). Parliament of Canada, 14 Feb. 2008. Accessed: 07 Aug. 2012. http://www.parl.gc.ca/Content/LOP/ResearchPublications/prb0330-e.htm.

2. Canada (Attorney General) v. Bedford, 2012 Ontario Court of Appeal 186. March 26, 2012.



Conscientious Objection Should students be allowed to be excused from abortion education?

BY AISHA GHARE

Swear by Apollo the physician and Asclepius ... To hold him who has taught me this art as equal to my parents ... so far so good ... I will do no harm or injustice to [my patients] ... of course, the basic tenet of medicine ... I will not give a woman a pessary to cause an abortion ... Wait a minute—what? Barely a full day into O-Week last year, not even a proper day into medical school, and we'd already hit our first ethical stumbling block of medicine as we recited the Hippocratic Oath.

In Term 2B's Ethics section, Queen's medical students are introduced to conscientious objection, which refers to how a physician may abstain from providing certain medical services on moral, religious or conscientious grounds. According to the Canadian Medical Association's Policy on Induced Abortions, physicians are under no obligation to recommend or perform an abortion but that "patients should be provided with the option of full and immediate counselling services in the event of unwanted pregnancy" and "there should be no delay in the provision of abortion services" [1], though whether this means that physicians have an obligation to actually refer patients to another doctor or whether they simply cannot act as barriers to abortion access is still up for debate. Nevertheless, though you may never want to be a doctor who condones abortion, much less one that performs them, moral objection should not excuse you from learning about the procedure, its risks and benefits, and the comprehensive medical care that goes with it.

I'm not saying that in order to practice medicine and be a modern day patient-centric doctor you have to give up everything you believe in. No two doctors or medical students are going to be entirely alike in their views or approaches to a particular patient condition, therefore governing bodies and the public can't expect doctors to be completely objective, to provide care without any bias or personal prejudice. Still, I can't reconcile how having to attend classes on abortion education is somehow akin to sacrificing one's values. Though a student should be exempt from clinical abortion care experience, nothing should hinder their learning of it in a non-clinical setting. Not only does the CMA's conscientious objection policy apply to the act of performing an abortion and not the learning of it (though there seems to be no overarching policy for all Canadian medical students), but at the heart of the matter is the standard of care that must be provided to all patients and the expectations that each

patient brings with them when they approach their doctor to discuss sensitive and important issues such as abortion. As future physicians, we will be more than diagnosticians and drug-prescribers; we will, hopefully, be unparalleled resources to our patients. Facts and details about abortion are easily accessed online, but there is a reason a patient will go to her doctor to discuss it instead: she wants information from someone who is competent, compassionate and wants what's best for her physical and mental well-being. And how can the medical students be that future resource, offer the best medical knowledge and advice on abortion, if they conscientiously object to learning about it?

Consider the scenario where a patient with an unwanted pregnancy goes to her family physician for advice. What happens when the doctor tells her that she is not even able to provide the patient with information, much less a referral or the actual procedure? If the patient is already feeling vulnerable and confused, her doctor's inability to give answers will seem like a blatant rejection, making her reluctant to approach another doctor. Even if the situation isn't so heavyhanded, the fact that a woman in an emotionally precarious condition cannot get the information she wants about a legal procedure is an affront to our modern medical system. Remember that this is a medical system that seeks to move away from paternalistic medicine and towards a patientcentered model. Regardless of physician reservations, there must be full and utter disclosure of all available health care options and their risks and benefits.

Although there are is no law concerning abortions in Canada and the procedure is funded by universal health care, there are still many factors that limit access to abortion services, such as a decrease in the number of physicians performing abortions and the distribution of abortion facilities. There are no facilities that provide the service in Prince Edward Island, and only one clinic in each of the other maritime provinces and territories [2]. Even in Ontario, most of the clinics are in Toronto, and the Northernmost clinic is located in Ottawa. Yet statistics show that "2–3 out of 10 pregnancies end in abortion and up to 40% of women will have had a [therapeutic] abortion during their reproductive life." [3]

Students cannot simply pass the buck and assume that there will be plenty of other classmates who will learn about the hows and whys of abortion or that because they do not



plan to go into family medicine or OBGYN that they are exempt from learning about it. Even if a medical student or a physician would never discuss termination options with a patient, believing that this would make them complicit in the act itself (this conscientious objection is certainly allowed by the CMA) [4], surely knowledge of the issue is better than ignorance. Even pro-life physicians and medical students would need to at least be cognizant of the technical aspects of abortion in order to give an educated foundation to their argument.

Unfortunately, the entire argument may be a moot point, with fewer schools in Canada and the U.S. including abortion education in the curriculum. A study in 2005 investigating the degree of abortion education in U.S. medical schools found that 17% of schools had no abortion education at all while 44% of the schools do not offer pre-clerkship abortion content [5]. Many of the other schools had minimal exposure to the subject, with most of it covered in an ethics course. Though Queen's appears to fare better than some other North American schools, it certainly can do with improvement. The topic of abortion is covered only briefly in Ethics in association with patient autonomy and conscientious objection. While the Pediatrics and Genetics course includes induced abortions as possible pregnancy outcomes in both its genetic malformations and antenatal care lectures, it doesn't delve into the impact of obtaining/providing abortions on the patient and physician, respectively. Speaking to a few 2014s and looking through the course schedule and lecture material on MedTech from last year, it appears that only spontaneous abortion is covered, and that too in only one lecture, with students claiming that most of their knowledge about induced abortions coming from interest groups and personal reading. This gap in our education is truly a shame - not just for the lack of physicians who will be adequately trained to provide abortion services - but also because some students do change their views and intentions on providing abortions after participating in reproductive health and abortion care electives and find such opportunities valuable [6,7]. Thus, it is imperative that not only must medical educators and institutions increase the scope of abortion in the curriculum to include comprehensive family planning options including induced abortions, but they must also make it mandatory for students to participate in non-clinical abortion education in order to ensure that future physicians are able to offer comprehensive and necessary information to needful patients.

References

1. "Induced abortion [CMA Policy]," Canadian Medical Association; last modified December1988, http://policybase.cma. ca/dbtw-wpd/PolicyPDF/PD88-06.pdf.

2. "List of Abortion Clinics in Canada," Abortion Rights Coalition of Canada, last modified July 11, 2012. http://www.arcc-cdac.ca/list-abortion-clinics-canada.pdf.

3. Atsuko K., Williams R. Abortion in Medical School Curricula. McGill Journal of Medicine 2005; 8(2): 157—160.

4. See note 1.

5. Espey E, Ogburn T, Chavez A, Qualls C, Leyba M. Abortion education in medical schools: a national survey. American Journal of Obstetrics & Gynecology 2005; 192: (2005) 640—643.

6. Espey E, Ogburn T, Dorman F. Student attitudes about a clinical experience in abortion care during the obstetrics and gynecology clerkship. Academic Medicine 2004; 79: 96—100.

7. Pace L, Yarrow S, Backus L, Silveira M, Steinauer J. Medical Students for Choice's Reproductive Health Externships: impact on medical students' knowledge, attitudes and intention to provide abortions.Contraception 2008;78: 31—35.

INTERVIEWS

Late Bloomers and Medical Epiphanies

CAREER ADVICE FROM OB/GYN GURU DR. PETER O'NEILL

BY JENNIFER KWAN AND WILLIAM REGINOLD

Queen's Medical Review (QMR): What is OB/GYN?

Dr. Peter O'Neill (PO): OB/GYN is a five-year Royal College of Surgeons of Canada program. You learn about obstetrics, gynaecology, and the different subspecialties within it including maternal-fetal medicine, gynaecologic surgery, gynaecologic oncology, laparoscopic minimally invasive surgery, reproductive endocrinology, urogynaecology, and diagnostic radiology. At the end of the five-year program, [graduates] can become OB/GYN generalists or they can go into subspecialty training.

QMR: Why did you choose OB/GYN as your specialty?

PO: During my undergraduate education at the University of Ottawa, I did research in embryology. When I first came to Queen's to study medicine, my hope was to become a paediatric surgeon, using new ideas from embryology and neonatology to perform fetal surgery. This approach was considered very avant-garde at the time. However, during medical school, I discovered that my personality didn't exactly match with the personality needed of a paediatric surgeon. The people who I admired the most and the people who I wanted to model my life after were three specific obstetric/ gynaecologists at Queen's. They each impressed me with what they did, how they viewed their work within their personal life, and how positive they were about their job, their role in education, and their hopefulness about their future. So much of my choice was based on the personalities, attitudes and behaviors of these three doctors.

I pursued paediatric surgery until the middle of clerkship. [Then], I made a switch and applied to OB/GYN (having done no electives in OB/GYN). My initial interest in paediatric surgery was a very intellectual, university-student interest. I had no idea of the practicalities of what it would take to get there and where in the world I would have to live to practise in that specialty. At that time, there were only two places in the world doing this type of training and if I had decided that I was going to go for it, it was going to mean the end of my relationship with the love of my life.

When I finally made the decision to do OB/GYN, I knew that I could still get to fetal surgery through maternal-fetal

medicine if that was truly what I wanted. However, during my residency, I found that I liked looking after women and their concerns. So, [after completing residency], I was happy to take my first job in primary practice in a very small town as a solo practitioner.

QMR: Did you have any mentors?

PO: There were three: Dr. Michael McGrath, who is now my Department Head; Dr. Neil Piercy, a generalist OB/GYN; and Dr. Ken Miller, another generalist OB/GYN. When I was on call with them, it was a different experience from any other job shadowing. They would invite the residents to have supper together. During those meals they talked about medicine but also all the other stuff in their lives that was good: their wives and kids. They made things look achievable. They were inspiring without being intimidating. They were all gifted surgeons and clinicians, but while fearless in the OR they were humble in the OR lounge.

I guess it rubbed off. Looking at my job now, when I was on call with a resident and a clerk last night, I made supper for the three of us. We had green curry. We got to sit together for half an hour between deliveries and we talked just like [my mentors] talked with me – very personally, very collegially, and very supportively.

"I believe that learning medicine is a sequence of 'oh my gosh' moments that are initiated by a sequence of caring people."

QMR: Tell us about your experiences with teaching.

PO: Last night, we were doing a C-section, I put the clerk's hand inside the patient's abdomen on top of her uterus to feel what the uterus feels like. The [clerk's] eyes grew as big as saucers. I believe that learning medicine is a sequence of "oh my gosh" moments [just like that one].

The difficulty with advanced surgery is that final year residents should be able to do my job when they leave in a







month. I can't [always] have my hands on top of theirs. So, I have to [train them to be independent]. [As a teacher], I have to be there, know what they are doing, and read what their faces are saying because I am still responsible [for the care of the patient]. The first time you hand [a resident] a knife and say "make an incision" is a very difficult moment and I have to admit that even after ten years of teaching, it is still the hardest thing that I do.

QMR: Do you have a common "bread and butter" case or presentation?

PO: I do a day of ultrasound for prenatal diagnosis, pregnancy dating, and investigations. I do OB/GYN clinic, where I see women for antenatal care as well as common gynaecologic problems (e.g. contraception, bleeding, and cramping pain). Last night, I was managing the labour floor. Wednesday, I was in the operating room. One day a week, I help with career counselling. No week is the same.

I feel fortunate that, even after twenty-seven years in practice, I can still say that waking up at 4AM to do a C-section to deliver a baby still gives me a thrill.

QMR: Tell us about an experience in OB/GYN that you didn't expect.

PO: I had a patient that came and told me that I had delivered her [decades earlier]. It made me feel quite old. [But], one of the joys [of OB] is that for some women I have delivered six of their babies.

QMR: What changes in the field of OB/GYN should we expect in the future?

PO: Unfortunately, I think that training programs are going to get longer with the move to [more] outpatient surgery, reduced inpatient hospitalization, lower surgical volumes, and more medical management. For a surgical program, you have to do enough cases to become competent.

In the past, we used to think that everyone should [have] surgery. If all you have is a hammer, everything looks like a nail. An example [of a decrease in surgical volumes] is the introduction of the mirena intrauterine device (IUD), a progesterone-coated IUD that we can put in [women] for contraception...that one device has reduced the number of tubal ligation surgeries that I do for contraception by 50% and hysterectomies by 50%. This [simple procedure] has really changed my practice.

Working with midwives is new, and I like my midwifery colleagues. They [have the flexibility to] spend more time with the patients and [many patients benefit from this additional care].

"There are a number of specialties, like urology and OB/GYN, where there are a lot of late bloomers."

QMR: Do you have advice for medical students?

PO: Don't exclude a career choice early on just because of your gender or just because you think that it doesn't interest you. In OB, males seem to think that they will have no interest in the specialty and women have a very personal view of OB/GYN, depending on their own interactions [with their obstetricians and gynaecologists]. There are a number of specialties, like urology and OB/GYN, where there are a lot of late bloomers. While everyone may have had an experience with a family doctor, a general surgeon, or a paediatrician, not everyone would have had a relationship with an urologist or gynaecologist. Because [of this lack of exposure], students can't imagine what [OB/GYN] would be like, and they don't tend to choose it. That is why you have to do an observership in things that you don't think that you want to do, just to make sure.

[In my opinion], if you are thinking about what [kind of doctor you would like to be], you should look at someone's best day [and the diverse range of tasks he/she engages in]. Yesterday, I had vaginal deliveries that were out of the textbook. It was absolutely beautiful. The student got to do most of the delivery; it was a great teaching moment [and] a great human moment. I felt that [the patients] appreciated what we did. [On the other hand], last night, I also had an obese patient with preeclampsia. [She was] diabetic, on insulin, failed to progress, and delivered a baby with Down syndrome. You can imagine how complex everything was. And yet again, it was a great case in terms of [learning to] communicate with the patient.

One of the first year residents in OB/GYN this year had wanted to do plastic surgery. She came to medical school convinced that she was going to be a plastic surgeon. She built up an application that was bullet proof. She had done research in plastic surgery, she had done electives in plastic surgery, she was a stellar plastic surgery candidate, [and] could have gone anywhere. [Then, she] came to OB in October and [said], "Oh my gosh, these are my people. These [doctors] are who I want to be." She was a great student on every service. So, [we] had her talk to the program directors, explain why she had this big change, and she was chosen. She was a great person that finally realized like a lock to a key that she was a match to our program.

Every program across the country can be very different. I came to the [Queen's residency] program because of



specific mentors. Those individuals mentored me through residency, afterwards, and still do. That is part of the Queen's experience. You will find that if you do this somewhere else, it may be a totally different experience. For my personality, coming from a small town [and] wanting to work in a certain way, this [program] was a perfect match for me. For other people, it can be like camping with people that you don't want to be with. You have to look at all the programs and make sure that [the program you choose] is one that you want to spend time at. I think it is very similar to Urology [at Queen's]. Our residents spend a lot of time together. It is amazing how well [everyone] works together.

Dr. Peter O'Neill is an assistant professor in the Department of Obstetrics and Gynaecology at Queen's University and the Director of Career Counselling at Queen's School of Medicine. He completed his medical school (1985) and residency in OB/GYN (1990) at Queen's University.

Photo Credit: Queen's School of Medicine. Used with permission from Dr. P. O'Neill.



Shooting Lasers and Saving Lives

AN INTERVIEW ABOUT UROLOGY WITH DR. KIRK ROTH

BY WILLIAM REGINOLD AND JENNIFER KWAN

Queen's Medical Review (QMR): Tell us about yourself.

Dr. Kirk Roth (KR): I am the current chief resident in Urology. I grew up in Calgary, but I have lived in Kingston since 1997. I have completed [all of my undergraduate studies and medical training] in Kingston.

QMR: How did you decide on urology?

KR: Urology is awesome. It is a surgical specialty and it is fun. I realized very early on that I wanted to do surgery [over] medicine. I liked sewing and working with my hands. I [observed] different surgeons during the summer after my first year of medical school, including Dr. [Darren] Beiko, a urologist [who led] my mentorship group. The [urologists that I met always] had great stories and a good sense of humour. I chose this specialty based on my interest in surgery and [from my personal experiences with the doctors].

QMR: Did you have any mentors?

KR: [As mentioned earlier], Dr. Beiko was a mentor to me. I was also mentored by Dr. [James] Wilson; he was the supervisor for my critical inquiry [research] project. [In general], all of the urologists [at Queen's] have been very nice to me. They are all very approachable.

"Kidney stone [procedures] are probably the most similar to video games..."

QMR: Is surgery in urology like playing video games?

KR: Endoscopic surgeries like TURP, a cystoscopic resection of the prostate, are very common. These are similar to video games, but they are video games that no one would want to play because it would be super boring for kids. Kidney stone [procedures] are probably the most similar to video games because you are in "pyjamas", wearing sunglasses and, shooting a laser in the dark. It is really cool. Urology has many surgeries that people who play video games would be good at [performing]. [Personally], I never played video games, [but, I do enjoy] table hockey, rocket hockey, and foosball. "When people think urology, they always think of genital problems, but that is only ~10% of what we do..."

QMR: What are your "bread and butter" cases?

KR: TURPs, TURBTs, kidney stone [procedures], radical prostatectomies, laparoscopic nephrectomies for kidney cancer, and cystectomies. Then, you get the [odd] testicular and scrotal surgeries. When people think urology, they always think of genital problems, but that is only ~10% of what we do (excluding prostate procedures).

QMR: Are there any other misconceptions about urology?

KR: I think that the lay population don't know that [urology] is [a surgical specialty]. [Also], urology is [one of] the few fields in medicine where you hate being at a party and having people ask you what you do. It's never a field where people seem impressed.

QMR: Have you had any unusual experiences in urology?

KR: No matter what specialty you go into, you will have a lot of weird stories. I have seen bees in the urethra. At least once a year we will have to take something strange out of someone's bladder. [In the past], there have been a birthday candle, a mascara canister—I have been in urology for five years and seen a few things.

"The general population is aging and urological problems are only going to become a bigger deal"

QMR: Do you have any advice for medical students interested in urology?

KR: Lots of people don't want to do [urology] because of preconceived notions of what you spend your time doing. [My advice is that] if you are surgically inclined, then come do an observational day or two [with us]. Most urologists are very nice and approachable. It's a good field and the people are fun. Also, at night you are less busy than some of the other surgical





specialties (e.g. general surgery, orthopaedics and OB/GYN). The general population is aging and urological problems are only going to become a bigger deal.

QMR: What is a typical day like?

KR: During residency, I usually [arrive at] work at 6:30 to 7:00 a.m., round for an hour, and then go to clinic or the OR.

QMR: Do you anticipate any new developments in urology?

KR: I don't know what to expect, [but], what we are doing now will not be what we are doing when I retire. Maybe the robot will become big news. In Canada, there are few places that do a lot of robotic prostatectomy procedures. In the U.S., 95% of procedures are done [with a] robot!

Dr. Kirk Roth is the current Chief Resident in the Department of Urology at Queen's University. He completed his undergraduate medical education at Queen's University in 2007. Dr. Roth is originally from Calgary, AB.

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The theme for the next issue of the Queen's Medical Review is "History of Medicine."

See http://qmr.qmed.ca/ for details.



