Clinical Activity

Ambulatory Clinic Visits

<table>
<thead>
<tr>
<th>Service</th>
<th>2015 - 2016</th>
<th></th>
<th></th>
<th>2016-2017</th>
<th></th>
<th></th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child</td>
<td>Adult</td>
<td>Total</td>
<td>Child</td>
<td>Adult</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Oncology</td>
<td>2186</td>
<td>69</td>
<td>2255</td>
<td>2340</td>
<td>89</td>
<td>2429</td>
<td>+174 (+7.7)</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>1266</td>
<td>0</td>
<td>1266</td>
<td>1136</td>
<td>4</td>
<td>1140</td>
<td>-126 (-10)</td>
</tr>
<tr>
<td>Hematology</td>
<td>843</td>
<td>11</td>
<td>854</td>
<td>906</td>
<td>3</td>
<td>909</td>
<td>+55 (+6.5)</td>
</tr>
<tr>
<td>Hemophilia</td>
<td>468</td>
<td>497</td>
<td>965</td>
<td>447</td>
<td>632*</td>
<td>1079</td>
<td>+114 (+11.8)*</td>
</tr>
<tr>
<td>Aftercare</td>
<td>207</td>
<td>250</td>
<td>457</td>
<td>201</td>
<td>257</td>
<td>458</td>
<td>+1 (0)</td>
</tr>
<tr>
<td>Sedation</td>
<td>381</td>
<td>3</td>
<td>384</td>
<td>359</td>
<td>1</td>
<td>360</td>
<td>-48 (-6.3)</td>
</tr>
<tr>
<td>Thrombosis</td>
<td>423</td>
<td>9</td>
<td>432</td>
<td>412</td>
<td>17</td>
<td>429</td>
<td>-4 (-1)</td>
</tr>
<tr>
<td>Neuro-oncology</td>
<td>219</td>
<td>74</td>
<td>293</td>
<td>228</td>
<td>90</td>
<td>318</td>
<td>+25 (+8.5)</td>
</tr>
<tr>
<td>Hemoglobinopathy</td>
<td>141</td>
<td>207</td>
<td>348</td>
<td>229</td>
<td>250</td>
<td>479**</td>
<td>+131 (+37.6)**</td>
</tr>
<tr>
<td>Total</td>
<td>6134</td>
<td>1120</td>
<td>7254</td>
<td>6258</td>
<td>1343</td>
<td>7601</td>
<td>+347 (+4.8)</td>
</tr>
</tbody>
</table>

New diagnoses: 71

Number of patients enrolled on an open clinical trial: 16

Number of patients enrolled on an open biology study: 25 (this number is high because the COG ALL protocol has a biology study component)

Number of patients enrolled on an ancillary study: 61***

*Notable increase in adults with hemophilia as children enter adulthood

**Marked increase in attendances in the hemoglobinopathy clinic with more children diagnosed

***A continuing increase driven in large measure by Project Every Child
Inpatient statistics

Average daily census 8.7
Mean in-patient length of stay 7.9 days*
Median in-patient length of stay 4 (4) days
Figures in parentheses are from 2015-2016
Average RIW 1.98 (3Y 1.30, 3C 0.87, PICU 2.03) **

*Driven by a small number of patients who had extended stays
**Increase in RIW from 2015-16

QoLA Care (Active as of November 2015)

71 new referrals; 69% Inpatient, 31% Outpatient
Referral Source: PICU 19.4%, Surgery/Acute Pain 16.7%, Complex Care 15.2%, Hem/Onc 12.5%, Neurology 4.2%, Gen Peds 11.1%, Genetics/Metabolics 2.8%, NICU 6.9%, Neurology 4.2%, Gastroenterology 4.2%, Physiatry 2.8%, Psychiatry 1.4%

19 Deaths, 50% Critical Care, 18.8% Inpatient Unit, 18.8% Home, 12.5% Hospice
Education

House staff who undertook full-time rotations in the service were:

**Fellows:**
- Mihir Bhatt
- Hadeel Mohammed
- Chantel Cacciotti

**Residents:**

<table>
<thead>
<tr>
<th>Name 1</th>
<th>Name 2</th>
<th>Name 3</th>
<th>Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brittany Binnington</td>
<td>Fahad Masud</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Arenda Strikwerda</td>
<td>Melanie Tannenbaum</td>
<td>–</td>
<td>2</td>
</tr>
<tr>
<td>Reynold Wuerth</td>
<td>David Zorko</td>
<td>Caroline Diorio</td>
<td>3</td>
</tr>
<tr>
<td>Marija Kacar</td>
<td>Ranu Malhi</td>
<td>–</td>
<td>4</td>
</tr>
<tr>
<td>Oyinkansola Oyefeso</td>
<td>Sarah Campos</td>
<td>–</td>
<td>5</td>
</tr>
<tr>
<td>Eroshini Swarnalnamin</td>
<td>Aban Baharbri</td>
<td>–</td>
<td>6</td>
</tr>
<tr>
<td>Ahmad Jaafar</td>
<td>Mohammed Alrowayshed</td>
<td>–</td>
<td>7</td>
</tr>
<tr>
<td>Kal Mungovan</td>
<td>Nadia Mansoor</td>
<td>–</td>
<td>8</td>
</tr>
<tr>
<td>Ahmad Jaafar</td>
<td>Sarah O’Connor</td>
<td>–</td>
<td>9</td>
</tr>
<tr>
<td>Lisa Brown</td>
<td>Noreen Choe</td>
<td>Brianna Empringham</td>
<td>10</td>
</tr>
<tr>
<td>Arenda Strikwerda</td>
<td>Melanie Tannenbaum</td>
<td>–</td>
<td>11</td>
</tr>
<tr>
<td>Madeline Burdick</td>
<td>Hannah Weinstangel</td>
<td>–</td>
<td>12</td>
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**Students**

**Visiting Electives**

<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madeline Edwards</td>
<td>University College Cork School of Medicine</td>
<td>8/1/2016</td>
<td>8/14/2016</td>
</tr>
<tr>
<td>Vanessa Zannella</td>
<td>University of Toronto</td>
<td>9/5/2016</td>
<td>9/18/2016</td>
</tr>
<tr>
<td>Meriem Latrous</td>
<td>University of Ottawa</td>
<td>9/26/2016</td>
<td>10/9/2016</td>
</tr>
<tr>
<td>Paul Webb</td>
<td>University of Western Ontario</td>
<td>10/10/2016</td>
<td>10/23/2016</td>
</tr>
<tr>
<td>Flora Shan</td>
<td>University of Toronto</td>
<td>10/10/2016</td>
<td>10/23/2016</td>
</tr>
<tr>
<td>Jonathan Krasinkiewicz</td>
<td>University College Dublin School of Medicine and Medical Science</td>
<td>1/16/2017</td>
<td>1/29/2017</td>
</tr>
<tr>
<td>Daniel Martinez</td>
<td>University of Calgary</td>
<td>2/27/2017</td>
<td>3/12/2017</td>
</tr>
<tr>
<td>Ali Taqi Syed</td>
<td>C.M.H. Lahore Medical College and Institute of Dentistry</td>
<td>3/20/2017</td>
<td>4/2/2017</td>
</tr>
<tr>
<td>Angelica Puopolo</td>
<td>University of Limerick Graduate Entry Medical School</td>
<td>5/22/2017</td>
<td>6/4/2017</td>
</tr>
<tr>
<td>Mary Rose Pambid</td>
<td>University of Limerick Graduate Entry Medical School</td>
<td>6/5/2017</td>
<td>6/18/2017</td>
</tr>
<tr>
<td>Medical Students – 2 week electives</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>--------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matthew Chan</td>
<td>McMaster University</td>
<td>June –July 2016</td>
<td></td>
</tr>
<tr>
<td>Nisha Kansel</td>
<td>McMaster University</td>
<td>Jan 20 &amp; 27 2017</td>
<td></td>
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<table>
<thead>
<tr>
<th>Clerkship</th>
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</thead>
<tbody>
<tr>
<td>Meirul Li</td>
</tr>
<tr>
<td>Kellee Stephens</td>
</tr>
<tr>
<td>Rebecca Chang</td>
</tr>
<tr>
<td>Carly Schenker</td>
</tr>
<tr>
<td>Sarah Woo</td>
</tr>
<tr>
<td>Ali Fawas</td>
</tr>
<tr>
<td>Marina Wang</td>
</tr>
<tr>
<td>Bradley Davis</td>
</tr>
<tr>
<td>Nikita Arora</td>
</tr>
<tr>
<td>Karen Ngo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pre-Clerk – Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brody Duncan</td>
</tr>
<tr>
<td>Julie La</td>
</tr>
<tr>
<td>Lindsay Sheinfeld</td>
</tr>
<tr>
<td>Shagufta Panchbhaya</td>
</tr>
<tr>
<td>Natasha Mense-Dietrich</td>
</tr>
</tbody>
</table>
Specific educational activities of staff include:

Dr. Uma Athale
Program Director: Pediatric Hematology/Oncology subspecialty training program – 3 MOH sponsored residents (2GY4 and one PGY6) and one international

Project supervision
Postgraduate
- Chantel Cacciotti (Pediatric Hematology/Oncology Fellow): Transfusion-related iron overload in children with cancer

Undergraduate
- Neha Parmar, (B.Sc. Life Sciences): Thrombocytopenia in children receiving myelosuppressive therapy and Central venous line dysfunction

Dr. Ronald Barr
Supervisory Committee
- Charlene Rae, PhD, Health Research Methodologies, McMaster University

PhD supervisory Committee
- Karina Viani, University of Sao Paolo, Brazil

Dr. Vicky Breakey
Undergraduate
Director, Pediatric Undergraduate Clerkship Committee, McMaster University
Educational Resource Person, Peds Hematology/Oncology, McMaster University

Research supervision
- Claudia Nguyen, BEng, Ryerson University, Summer Studentship, Canadian Haemophilia Society, 2017 Dream of a Cure Summer0
- Jennifer Herman, BHSc, Health Sciences, 3H03
- Michele Zaman, BSc, Life Sciences, 4B06

Postgraduate
- Meredith Austin-Appleton (PGY3), Research supervisor
- Caroline Diorio (PGY2), Resident Advisor
- Abeer Hegazi (PGY1), Academic Coach
- Vidushi Khatri (PGY1), Academic Coach

Standing Committee Member, Education Advisory Committee, Department of Pediatrics

Appointed to the Royal College of Physicians and Surgeons Pediatric Hematology/Oncology Examination Committee

Dr. Anthony Chan
Post-Doctoral Fellows
- Mei Juan Huang (China), Research Fellow
- Mihir Bhatt (Hamilton, Canada), Clinical Scholar; Research Advisor
Graduate Students
- Shana Aadl Shaya; (PhD Candidate); Member of Supervisory Committee, 2015-present

Dr. Adam Fleming
Undergraduate Medical Education
- Medical Foundations 4 – Neoplasia Sub-unit Planner and Lecturer
- PBL group tutor for Medical Foundations 4

Supervisory Committee Member
- Maleeha Qazi, PhD Candidate, Biochemistry
- Dr. Michelle Kameda, MSc Candidate, Biochemistry
- Kuan-Wen (Katherine) Wang, MSc candidate, Medical Sciences

Postgraduate Medical Education
- Residency Program Committee, Resident Affairs portfolio; General Pediatrics
- Residency Program Committee, Pediatric Hematology/Oncology
- Dr. Dan Mulder (Pediatrics), Academic Coach
- Dr. Luke Kieswetter (Pediatrics), Academic Coach

Dr. Anne Klassen
PhD Supervisor
- Karen Wong; 2011-present
- Abbey Torek; 2012-present
- Elena Tsangaris; 2013-present

Thesis Supervisor
- Ali Tassi; 2016-present
- Sarah Hyatt; 2016-present

Postdoctoral Supervisor
- Dr. Elena Tsangaris; 2017-2018

Supervisory Committee Member
- Jonathan Norris, MSc Thesis: Developing a PRO instrument for adult facial palsy patients
- Lott Poulson, PhD Thesis: The Psychological Impact of Body Contouring Surgery in Massive Weight Loss Patients: Validation of the BODY-Q in Denmark

Dr. Dave Lysecki
Undergraduate Research supervision
- Vivian Tam (Medical Student): 3 Wishes for Pediatric End-of-Life Care

Postgraduate supervision
Standing Committee Member, Pediatric Hematology/Oncology Residency Training Council, McMaster University
Standing Committee Member, Pediatric Palliative Care Postgraduate Education Committee, Canadian Hospice Palliative Care Association
- Meredith Appleton-Austin, PGY1, Resident Advisor
Research supervision

- Dan Mulder (Pediatric Resident): NMDA-receptor antagonism for acute pancreatic pain: successful use of ketamine and methadone in a teenager with refractory pain
- Brittany Anne Howson-Jan (Pediatric Resident), Vivian Tam (Medical Student): 3 Wishes for Pediatric End-of-Life Care
- Khaled Alghamdi (Pediatric Complex Care Fellow): Can gabapentin reduce the need for high-risk medications in patients with stable severe neurological impairment?

Dr. Stacey Marjerrison
Coordinator of the Longitudinal CanMEDS curriculum for the pediatric residency program

Research Supervision:
Post-graduate students:
- Lisa Brown, Pediatric Resident
- Julianna Sienna, Radiation Oncology Resident
- Chantel Cacciotti, Pediatric Hematology/Oncology Fellow
- Caroline Diorio, Pediatric Resident

Masters Students:
- Sarah Hyett, Health Research Methods, Evidence & Impact

Undergraduate supervision, Honours Thesis
- Natalie Sloof, Health Sciences (4A12)

Student Advisorship:
Residents:
- Brianna Empringham, PGY3 Pediatric Resident

Medical Students:
- Allison Ouellette & Jimmy Zhang
- Selina Zhang & Benny Zhang

Dr. Carol Portwine
Postgraduate
- Madeline Burdick (Pediatric Resident), advisor/mentor
- Lindsay Fleming (Pediatric Resident), advisor/mentor

Undergraduate
- Brittany Howson-Jan, supervisor, block elective
- Fahad Masud, supervisor, block elective
- Arend Strikverda, supervisor, block elective
- Melanie Tannenbaum, supervisor, block elective
Research Supervision

- Nini Nguyen, undergraduate medical sciences

Vanessa Burgess
Clinical Supervisor/Preceptor

- Meredith Reesor – MscOT candidate, Occupational Therapy program, McMaster University, Mar 6 – Apr 28, 2017
NEW GRANTS


2016-2017, Bhatt, M. Awarded the Can-Vector Grant.


2016-2018, Sun L, Breakey VR, Jackson S, Wu J, Outcomes indicators of transitional care in adolescents with hemophilia: A Delphi survey of Canadian hemophilia care providers and patient focus groups. Canadian Hemophilia Society, Care Until Cure Grant, $40,000.


2017-2018, Pusic A, Klassen A (co-PI), A qualitative phase I study to develop a new patient-reported outcome instrument for acute and chronic wounds: The WOUND-Q, The Plastic Surgery Foundation, $100,000 USD.


2017-2018, Karen Strike and Sandra Squire (PIs), Physiotherapy and point of care ultrasonography for the assessment and management of acute muscle bleeding in patients with hemophilia A and B, Canadian Hemophilia Society Baxalta Fellowship, $39,382.

2017-2020, Anthony Chan (PI), Optimal anticoagulant therapy in the presence of factor VIII deficiency or low platelets, McMaster Research Agreement $120,000.
Publications


Barr RD. Planning a comprehensive program in adolescent and young adult oncology – a collision with reality. Journal of Adolescent and Young Adult Oncology 5: 303-309, 2016.


Communications at National and/or International meetings

Dr. Uma Athale

Athale U. Newborn Screening for hemoglobinopathy: can I make the diagnosis? CME for NHSC Physicians SCD. St Catherine, Ontario, Canada, November 19 2016.


Athale U. Key Note Speaker at the 28th Annual Valentine’s Dinner and Dance, Thalassemia Foundation of Canada, Concord, ON, Canada, February 25th 2017.


Dr. Ronald Barr

Sustainable improvement in outcomes in adolescents and young adults (AYA) with cancer in Canada: The role of the Canadian Task Force (TF) on AYA with cancer. International Pediatric Association. Vancouver, August 2016.


The prevalence of osteonecrosis (ON) is high after treatment for acute lymphoblastic leukemia. International Society for Pediatric Oncology. Dublin, October 2016.

Sustainable improvement in outcomes in adolescents and young adults (AYA) with cancer in Canada: Cancer control perspective and system performance; the Canadian Task Force on AYA with cancer. World Cancer Congress. Paris, November 2016.


Overview of metrics for adolescent and young adult (AYA) cancer care in Canada, Toronto, April 2017.


**Dr. Vicky Breakey**


Physician factors determining treatment decisions in selecting second line agents for pediatric ITP. American Society of Hematology, San Diego, December 2016.

Clinical characteristics and quality of life of children with ITP starting second line treatments: Data from the ITP Consortium of North America ICON1 Study. American Society of Hematology, San Diego, December 2016.

Comparison of bleeding tools in a cohort of pediatric patients with ITP: Data from the Pediatric ITP Consortium of North America ICON1 Study. American Society of Hematology, San Diego, December 2016.
Iron overload is highly prevalent in all disease severity states in pyruvate kinase deficiency (PKD). American Society of Hematology, San Diego, December 2016.


Using cognitive interviews and expert feedback to validate the Australian AYA distress thermometer and problem checklist for use in Canada. American Society of Clinical Oncology, Chicago, June 2017.


Dr. Anthony Chan


Risk Factors for Inhibitor Development in Haemophilia A. Hemophilia Update (Supported by Novo Nordisk), Hamilton, December 2016.

Thrombophilia in Pediatric Cancer (State of the Art - Pediatric Thrombosis). 61st Annual Meeting of the Society of Thrombosis and Hemostasis Research (GTH), Switzerland, February 2017.

Inhibitors in Hemophilia - Risk Factors. Western University/Schulich Medicine & Dentistry, Department of Medicine, Hematology Grand Rounds, London, ON, March 2017.


Bone Mineral Density in Canadian Children with Severe Hemophilia A or B: A Multi-centre, Cross-sectional, Observational Study. CHS/Pfizer Care Until Cure Research Program, Care Until Cure Research Knowledge Exchange Meeting, Toronto, May 2017.

Hemophilia Care: Factor Concentrates and Challenges. Blood Club (Learning Programs supported by Novo Nordisk Canada), Vancouver, June 2017.

Dr. Anne Klassen

The development of a patient reported outcome instrument in paediatric patients with facial differences. Plastic Surgery Congress. Australia, June 2017.


Determining content validity of distress screening tools for use by Canadian AYA cancer patients and survivors. Adolescent and Young Adult National Network Meeting. Toronto ON, April 2017.

Dr. Stacey Marjerrison


**Dr. Carol Portwine**


**Dr. John Wiernikowski**

Paediatric Case Reports, ISOPP Annual Symposium, Budapest, Hungary; April 2017.

Global Oncology Pharmacy Leaders Summit, Co-Chair, Budapest, Hungary, April 2017.
Other Highlights

Dr. Uma Athale  
Steering Committee Member, Provincial Pediatric Oncology Plan, Pediatric Oncology Group of Ontario

Content expert and moderator, CME for Health Care Providers from Niagara Health Sciences Center and community physicians. November 19th 2016.

Appointed as Associate Faculty, Department of Health Research Methods, Evidence and Impact (January 2017)

Elected Member, Promotions and Tenure Committee, Department of Pediatrics, McMaster University (January 2017)

Judge for poster session at the 12th Continental meeting of SIOP in Africa and 4th Childhood Cancer International Africa Regional Conference at Marrakech, Morocco April 5th to 8th 2017.

Dr. Vicky Breakey  
Dr. Breakey was promoted to Associate Professor in July 2017.

Dr. Breakey was a co-editor for the publication: The Hospital for Sick Children Handbook of Pediatric Hemostasis and Thrombosis. Second Edition January 2017 (Switzerland, Karger).

Appointed Director of the Clerkship Program in Pediatrics with effect January 1, 2017 for a 3 year term

Dr. Anthony Chan  
McMaster Children’s Hospital/Hamilton Health Sciences Foundation Chair in Pediatric Thrombosis and Hemostasis, Renewal for second term

McMaster Centre for Transfusion Research (MCTR), Associate Member

Pediatric Oncology Group of Ontario (POGO), Treasurer, and member of Audit, Finance and Risk Management Committee (AFRMC)

Appointed to the Order of Ontario in 2017

Dr. Adam Fleming  
Promoted to Associate Professor with effect July 1, 2018

Dr. Anne Klassen  
International Society for Quality of Life Research Task force member to determine collaboration between International Society for Quality of Life and International Consortium of Health Outcome Measurement (ICHOM)

Member of Panel to award Emerging Leader Award for International Society for Quality of Life
International Society for Quality of Life Research Board Member Liaison for 3 Special Interest Groups: Health Preference Research, Mixed Methods, Child Health

Dr. Dave Lysecki  
Appointed to institutional (HHS) regional, provincial and national palliative care committees
Dr. Stacey Marjerrison
Member of the Financial Management Committee, Department of Pediatrics.

Aided in the development of the Cancer Care Ontario Aboriginal Relationship and Cultural Competency Courses Pediatric Module.

Member of the Pediatric Oncology Group of Ontario Provincial Pediatric Oncology Plan (POPO) Working Groups: Therapeutic alliances with Indigenous Families, Survivorship and Research.

Chair of the SIOP PODC Traditional & Complementary Medicine Working Group.

Dr. Carol Portwine
Appointed SMO for COG, DFCI and TIN (Infant ALL) clinical trials in Canada with effect July 1, 2017

Dr. John Wiernikowski
Member, Planning Committee of 2017 POGO Symposium.

Recipient of the 2017 CAPhO Merit Award

- The first phase 1 clinical trial protocol for children with cancer opened at McMaster in August 2016.
- Both of the SEED grants awarded by POGO in 2017 came to McMaster.

THANK YOU FOR ANOTHER SUCCESSFUL YEAR!