Implementation of a consulting continuity clinic for senior pediatric residents:
an educational model for professionalism, transition to practice, and assessment

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Background

The Royal College of Physicians and Surgeons of Canada have outlined that "Following the completion of training and certification in Pediatrics, the resident will be prepared for independent practice capable of assuming a consultant's role in the specialty [1]." Much of residency training is completed in a tertiary institution, and is heavily inpatient and subspecialty based. There has been recognition that learners are spending less time in General Pediatric and community practices similar to those in which most trainees will eventually practice. Pediatric outpatient continuity clinics were introduced first in the US, to help address readiness for independent practice. Residents completed a half-day clinic each week, and clinics were focused on primary care provision for pediatric patients[2].

Benefits of these clinics included:
* improved resident learning and autonomy
* better resident-patient relationships,
* enhanced patient satisfaction
* improved patient compliance [3-5].

Ten of 13 Pediatric residency programs across Canada informally surveyed currently run continuity clinics for their senior residents; however, no data has been published on the implementation of these clinics. Clinic frequency ranges from once per week to once per month and predominantly occurred in the hospital's outpatient clinics.

Clinic Structure

Our senior Pediatric continuity clinic is a consulting pediatrics clinic located within McMaster Children's Hospital. Residents attend clinic approximately monthly, on a variable-day basis. Each half-day clinic involves two senior residents, one supervising Pediatrician and a clinic nurse. Resident responsibilities are clearly outlined at the beginning of each academic year with a resident "Code of Conduct", with the expectations of professionalism and that a patient's hospital chart, dictations, and laboratory values have been reviewed prior to clinic. Residents are able to access patient charts and their clinic schedule electronically from any computer inside the hospital and through remote online access outside of the hospital.

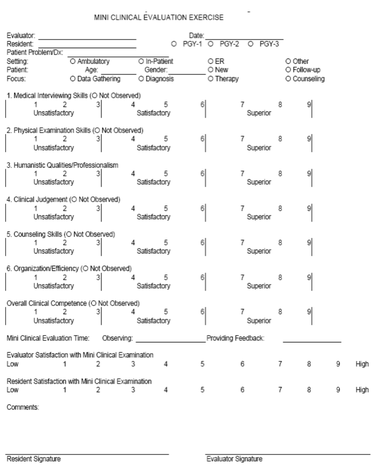
Referral sources:
* family physicians
* emergency physicians
* subspecialty pediatricians
* inpatient pediatric ward including resident self-referrals

Resident Education and Evaluation

Formal learning objectives were outlined prior to the clinic's inception and these are distributed to senior residents prior to each academic year. These objectives highlight non-medical expert CanMEDS skills necessary for transition to independent practice including:
* Manager
* Professional
* Health Advocate
* Scholar

Residents are expected to develop their own list of differential diagnoses for each case and outline a specific management plan. Informal teaching occurs around each patient seen with the attending pediatrician providing immediate feedback about the learner's assessment. Each resident is also mentored in billing practices by the supervising pediatrician. Time permitting, a more formal teaching session during the clinic is encouraged.

Each clinic the faculty must complete a Mini-Clinical Evaluation EXercise (mini-CEX) (Figure 1) for each resident. This consists of a 10-15 minute observed history, physical examination or counseling session. The attending observes the resident interaction with the patient and family, then provides the learner with both verbal feedback and a written summary for their reference.


MINI CLINICAL EVALUATION EXERCISE

Evaluator: _____ Date:
Resident: _____ ○ PGY-1 ○ PGY-2 ○ PGY-3
Patient Problem/Dx:
Setting: ○ Ambulatory ○ In-Patient ○ ER ○ Other
Patient: Age: _____ Gender: _____ ○ New ○ Follow-up
Focus: ○ Data Gathering ○ Diagnosis ○ Therapy ○ Counseling

1. Medical Interviewing Skills (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

2. Physical Examination Skills (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

3. Humanistic Qualities/Professionalism
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

4. Clinical Judgement (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

5. Counseling Skills (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

6. Organization/Efficiency (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

Overall Clinical Competence (○ Not Observed)
1 2 3 4 5 6 7 8 9
Unsatisfactory Satisfactory Superior

Mini Clinical Evaluation Time: Observing: _____ Providing Feedback: _____

Evaluator Satisfaction with Mini Clinical Examination
Low 1 2 3 4 5 6 7 8 9 High

Resident Satisfaction with Mini Clinical Examination
Low 1 2 3 4 5 6 7 8 9 High

Comments:

Resident Signature Evaluator Signature

Figure 1

Continuity

One of the aims of our Senior Resident clinic was to allow for continuity of patient care and to encourage learners to follow patients over time. There has been no previous documentation of continuity in a resident pediatric consultation clinic. Over the academic year of 2010-2011, of 29 consults reviewed, 16 patients were asked to return to the clinic for follow-up. 6 of these 16 patients were seen by the resident who initially performed their consultation, allowing for a continuity rate of 37.5%.

Challenges contributing to minimal continuity of same providers:
* patient cancellation
* unanticipated resident illness
* out-of-city resident electives and vacation
* resident clinic schedule changes

Conclusions

Senior Resident continuity clinics are currently used in Pediatric training programs across Canada. American resident-run clinics have been shown in primary care to increase resident skill in independent management of patient issues and patient interactions [3-5]. It provides residency training programs with a formal process to address non-medical expert CanMEDS competencies. In addition to teaching residents organizational and management skills, continuity clinics also provide an ideal environment to hone and polish history taking and physical examination skills. The attending physician has time set aside to supervise residents and spends time directly observing and providing feedback.

There are multiple ongoing challenges with the operation of such a clinic which include:
* resident scheduling - need for reminder systems and flexibility with other clinical demands
* follow-up - ensuring residents complete (with appropriate supervision) necessary reports, and clinical follow-up of investigation results
* clinical fidelity - ensuring residents exposed to similar patient problems as will be encountered in a community pediatric consulting practice (rather than those nearly exclusive to an academic tertiary care centre)

Future Directions

This clinic has experienced challenges in maintaining patient continuity with consistent care providers. Previous research has shown that when clinics are scheduled with increased frequency, on a fixed day, they can more effectively maintain continuity[9]. Final year trainees may benefit from this type of model to better facilitate their transition to practice. In addition, small group clinic models for follow-up may be required.

Our institution has also begun piloting community-based continuity clinics for senior residents. It is hoped this transition will give experiences reflecting true community consultations, practice constraints and available resources. We anticipate further scheduling challenges, increased need for flexibility given multiple resident demands and increased travel time to community practices.

Formal comparisons of continuity clinics in residency training programs across Canada would be beneficial to further develop these as a key component of competency-based training.

References

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