Transitioning Transplant
to the Outpatient Setting

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In 1993 FHCRC transplanted around 400 patients/year
- Average outpatient census of 60-80
- Average inpatient census of 75
- We staffed 11 RNs in Clinic/weekday

Today FHCRC/SCCA transplants around 450 patients/year
- Average outpatient census of 180
- Average inpatient census of 40
- We staff 25 RNs in Clinic/weekday

Nursing Care in the
Ambulatory Setting

Early 1990's
- Admitted for all conditioning
- Discharged when:
  - ANC ≥ 500
  - Eating ≥ 1000 cals/day
  - Rarely requiring home infusions

Today
- Admitted for clinical symptoms not able to be treated, or therapies not able to be given effectively on an outpatient basis
- Discharged when symptoms and therapies can be handled on an outpatient basis

Ambulatory Criteria
Care moves to Ambulatory Settings

What changed?

• Autologous transplant moved to the outpatient clinic (1993)
• Conditioning for allogeneic transplant moved to the outpatient clinic (late 1990's)
• Infusion for most sources of stem cells moved to outpatient clinic
• Discharge parameters became more liberal
• Revolutionary PO antiemetics
• User-friendly home infusion pumps

FY 2014 Transplants

• 29 transplant patients never admitted during transplant course
• 2.9 average number of admissions per transplant
• 59 Pediatric transplants in the hospital

FY 14 Adult Transplants by Site of Care

- Clinic
- Hospital
Clinic Visit Guidelines

- Neutropenic (ANC<500) patients seen daily
- Caregiver living with patient (adequate skills/education documented by RN)
- Clinic visit mandatory the day after hospital discharge
- Every patient has at least 1 visit/week with attending physician
- Most patients have 2-3 visits/week post transplant
- Platelet count supportable at ≥ 10K with transfusions no more than 2x/day

Admissions

- Planned
  - Conditioning Chemotherapy schedule requiring RN care when Infusion Suite closed
  - Special isolation required (radiotherapy)
  - URD cells arriving when clinic closed
  - Cord Blood infusions (stunned heart syndrome)
  - Comorbidities
  - Caregiver Issues
  - Insurance Requirement
  - Research Protocol Requirement

- Unplanned
  - Severe regimen related toxicities
  - Pain requiring IV pain medications
  - Inability to take PO meds
  - Temperature > 38.3 C or > 38 sustained for one hour & neutropenia
  - Altered mental status
  - Severe deconditioning
  - Postural hypotension not responding to fluids
  - Severe GVHD

Outpatient Care

- Advantages
  - Patient Satisfaction
  - Cost/ decreased LOS
  - Increase hospital capacity
  - Decreased nosocomial infections
  - Increased physical activity

- Challenges
  - Burden of care transferred to caregiver
  - Can be exhausting for patients and caregivers
  - Not a “captive audience”
  - Physical location (within 30 minutes of clinic)
  - Most inpatient admissions are unplanned, same-day
  - Increased outpatient acuity
Caregiver Responsibilities

Consistent Support
Present most of the time, breaks less than 3 hours
- During conditioning
- 1st 1-2 weeks after initial discharge
- Requiring 3 different IV infusions/24 hrs
- Neutropenia (ANC < 500)
- Altered mental status
- Weakness/limited mobility
- Sliding scale insulin

Support for Ambulatory Model

- Interdisciplinary team care model
- Transplant Triage Nursing (24/7/365)
- Hospital admit direct to BMT Unit
- Infusion services available in Clinic
  - 7:30am-10pm (weekdays)
  - 7:30am-5pm (weekends/holidays)
- Afterhours infusion services available for Outpatients on Inpatient units
- Transition Nursing based in clinic
- Chemo and TBI conditioning in Clinic
- ECP and PUVA available in Clinic
- Transplant specialized consulting providers (GI, ID, Psych) in Clinic

Support for Ambulatory Model (contd.)

- Volunteer Services
- Patient Housing
- Shuttle Service
Daily rounds with all team members:
- Responsible for 1 team (12-20 patients/team)
- 1 Advance practice provider
- 1 RN
- 1 Scheduler
- Child Life (Pediatrics)
- Responsible for 3 teams (36-60 patients)
- Attending MDs
- Social Worker
- Nutritionist
- Clinical Pharmacist

Interdisciplinary Transplant Teams

Clinic Nursing Responsibilities

- Patient/Caregiver Assessment
- Care Coordination
- Handoff Communication
- Psych/social support
- Patient Triage
- Patient/Caregiver Teaching

Assessment

- Physical
- Emotional
- Compliance
- Learning style
- Family/caregiver
Care Coordination

- Incorporate medical plan into patient’s life
- Liaison between complex health care system and patient
- Transition Nursing coordinates care between hospital and clinic

Handoff Communication: Weekend Signout

<table>
<thead>
<tr>
<th>Patient</th>
<th>Diagnosis</th>
<th>Treatment</th>
<th>Status</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doe, Janice “Jane”</td>
<td>Multiple myeloma</td>
<td>COA off VTD-PACE (2/11); VP16</td>
<td>s/p collection attempt</td>
<td>Current Issues: Started collection on 1/25, CD34 14 (was 15 on 1/24), collected 2.49x10^6. CD34 was 7 on 1/26, did not collect again. Doubled GCSF dose. Repeat CD34 count 1/27 was 6. Stopped collection attempts. Start VP16 chemo mobilization 2/11</td>
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Handoff Communication: Hospital Admission
Telephone Triage

- Phone Triage by Transplant RN available 24 hours/day
- In Person Triage by Transplant Advance Practice Provider and RN available 24 hours/day
- Access to RNs on Telephone essential for safety and patient satisfaction
- Standards for call-back parameters

Patient Teaching

- Essential for patient safety in ambulatory setting
- RNs spend most of their time in Patient Teaching
- Consider classes
  - Medication
  - Chemotherapy
  - Supportive Care/Prophylactic
  - Treatment therapy
  - IV medications/hydration
  - Injections: Anticoagulants/insulin
- Pre/post Procedure
- Managing care at home
- GVHD

Longevity & Survivorship

- Transplant Transition Clinic
  - Transition to primary care
- Long Term Follow Up Service
  - Telemedicine/tele nurse
  - Follows and consults on all patients transplanted at SCCA/FHCRC for life (currently 5,436 patients)
- Survivorship Clinic
I felt that no where else could take care of me like this group. All professional and caring. I felt loved.

I am very fortunate and grateful to be treated at the clinic. The team has taken and continues to take the best care of me.

Your nurses show excellent breadth of knowledge, and huge compassion and understanding for my care.

I have been to a lot of hospitals in the last 17 years, and none compare to the excellent nursing care at SCCA

Thank you for the WORLD-CLASS treatment I have received from all transplant clinic staff!

**Patient Satisfaction**

**“Nurses are my secret weapons”**

- ED Thomas, MD

**Nursing Contribution**

- **Advocate** - one that supports or promotes the interests of another
- **Pioneers** - goes before, as into the wilderness, preparing the way for others to follow
- **Daring** - willing to take on or look for risks.
- **Tenacity** - persistent determination

**Characteristics of Transplant Nurses: Partnering with our Patients and their Caregivers**
Thank You for Continuing to Be Pioneers