




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

<p>Early 1990's</p> <ul style="list-style-type: none"> • Admitted for all conditioning • Discharged when: <ul style="list-style-type: none"> • ANC \geq 500 • Eating \geq 1000 cal/day • Rarely requiring home infusions 	<p>Today</p> <ul style="list-style-type: none"> • 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
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Ambulatory Criteria

Care moves to Ambulatory Settings

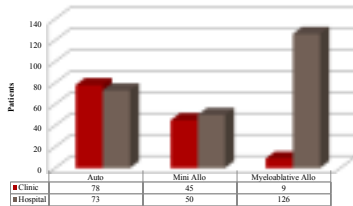


- Autologous transplant moved to the outpatient clinic (1993)
- Conditioning for allogeneic transplant moved to the outpatient clinic (late 1990's)
- Infusion for most sources of stem cells moved to outpatient clinic
- Discharge parameters became more liberal
- Revolutionary PO antiemetics
- User-friendly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



What changed?

FY 14 Adult Transplants by Site of Care



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



FY 2014 Transplants

- 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 $\geq 10K$ with transfusions no more than 2x/day

Clinic Visit Guidelines

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

Admissions

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

Advantages

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



Outpatient Care

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

Caregiver Responsibilities

- 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

- Volunteer Services
- Patient Housing
- Shuttle Service



Support for Ambulatory Model (contd.)

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

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



Clinic Nursing Responsibilities

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



Assessment

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



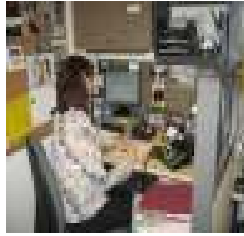
Care Coordination

Patient	This Week: (See handoff for current details of ongoing problems)	Friday 2/13	Saturday 2/14	Sunday 2/15	Monday 2/16
Time: Janna "Jani" Hospital ID #: Age: 47 yo Dx: Multiple myeloma Status: xip collection attempt Collection: COA off VTD-PACK (2/11) VP16 Transplant: 1137, tandem oib. Threshold: standard Precautions: standard	Background: -MM dx 5/14. Extensive skeletal involvement w/ multiple rib fx. XRT to R sacrum. RVD on cycles. DT-PACK x2 cycles. VTD-PACK x1 (1/8) -Rx: Graves dx (2012), off meds since 2013 -only collected 2.4%IDP w/ VTD-PACK. Will attempt 2nd mobilization. Current Issues: Started collection on 1/25. CD34 14 (was 13 on 1/24), collected 2.4%IDP. CD34 was 7 on 1/26, did not collect again. Doubled GCSP dose. Report CD34 count 1/27 was 6. Stopped collection attempt. Start VP16 chemo mobilization 2/11. D/C from hosp 2/13.	D/C hospital clinic Labs GCSP	GCSP Labs	GCSP	Dressing change
Smith, Michael "Mac" Hospital ID #: Age: 55 yo Dx: NHL - DLBCL Status: continuing Collection: COA - R-GDP Transplant: Bu-MeT Threshold: standard Precautions: standard Interpreter: Karen for visit or conference, teaching	Background: -NHL - DLBCL (T-cell, B-cell) from follicular dx 8/2013. Rec'd R-CHOP w/ cycles (1/13-2/14) w/ CR achieved. 7/14 dx on RTCT w/ splenic involvement. R-GDP x2 cycles (1/29, 1/22). Collection off cycle 2. -In: HTN, HLD -DM type 2, takes Metformin -hx eczema Current Issues: Doing fine. 1. acilia molluscum contagiosum evaluated by Derm 1/26, multiple spots from. Insurance is cleared. Wife is leaving for the weekend. Sister will cover.	Labs RN clinic Thiotepa	Labs RN Clinic Thiotepa	Labs RN clinic REST	Cells today? Team clinic Labs

Handoff Communication: Weekend Signout

Handoff Communication: Hospital Admission

- 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



Telephone Triage

- 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



Patient Teaching

- Transplant Transition Clinic
- Transition to primary care

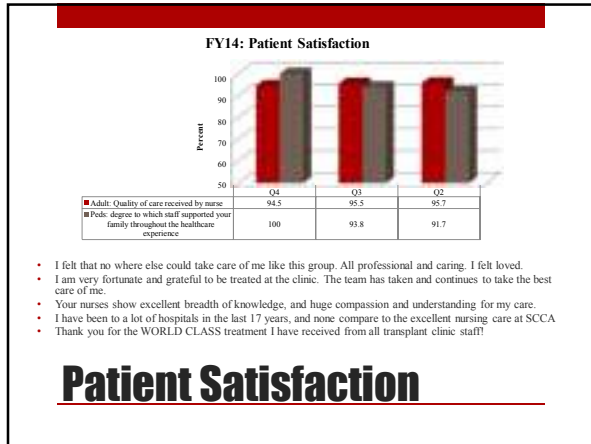


- Long Term Follow Up Service
- Telemedicine/tele nurse
- Follows and consults on all patients transplanted at SCCA/FHCRC for life (currently 5,436 patients)



Survivorship Clinic

Longevity & Survivorship



“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**