The Nurse Practitioner Role in Transitions of Care: One Institution’s Experience

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Care Coordination Department
Objectives

• Review Transitions of Care and relationship to ACA
• Compare Transition Nurse Specialist role as it relates to case management, advanced practice nurse and public health role
• Specific areas of concern related to high risk populations and HIV / AIDs
• Lessons Learned & Future Plans
The Care Transitions Continuum

Source: Sg2
Drivers of Transitions of Care Efforts

• Affordable Care Act: Value-Based Purchasing & Avoidable Readmissions
• DSRIP (Delivery Service Reform Incentive Pool)
• Grants / Government Programs (Care Transitions Intervention (CTI)/Community-Based Care Transitions Program (CCTP))
• Regulatory requirements for transitions of care (e.g. CMS, TJC)

Quality data highlights the need – and it’s the right thing to do for our patients!
<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Formation of the Discharge Process Committee. Effort led by Hospital Medicine</td>
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<tr>
<td>2006</td>
<td>A standardized template for patient discharge instructions was implemented in the electronic medical record</td>
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<td>2006</td>
<td>Hospital Medicine became involved in Project BOOST</td>
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<tr>
<td>2008</td>
<td>Preliminary project completed with observations of RN teaching at the time of discharge</td>
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<tr>
<td>May 2010</td>
<td>EPIC discharge module, electronic medication reconciliation implemented</td>
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<tr>
<td>Sept 2010</td>
<td>RN Teach back coach project, EPIC implementation (February 2011)</td>
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<tr>
<td>Nov 2011</td>
<td>RN DC advocate project, Care Transitions Intervention Collaboration with Aging and Independent Services</td>
</tr>
<tr>
<td>2012</td>
<td>RN Transitions coach project, Reorganization of Discharge Process Committee into project-focused workgroups</td>
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Transitions of Care (TOC) Structure

**TOC Executive**

*Strategizes efforts, links to other efforts in the health system, addresses systems barriers identified by the project teams*

**TOC Steering**

*Coordinates efforts among the teams, provides support and feedback to teams, forum to inform the health system strategy efforts and to move strategic objectives to the operational level*

**Operational Level – Project Teams / Leads**

- Advanced Transitions of Care (ATOC)
- Care Transitions Protocol (CTP)
- Follow Up Phone Calls
- Medical Home
- Medication Reconciliation
- PCP Communication
- Skilled Nursing Facility (SNF)
1. Developed a staffing and implementation plan
2. Developed protocols for effective communication (beginning of Care Transitions Protocol)
3. Created teams to support and manage the project

Year 2 – FY12
4. Identified top chronic health conditions contributing to avoidable / preventable readmissions
5. Created a system to stratify patients into risk for readmission categories
6. Piloted Care Transitions Protocols (CTP) on 2 wards
7. Began efforts to improve timeliness of discharge summary completion (Hospital Medicine only, 80% completed within 48 hours of discharge)
8. Initiated efforts to Medical Home patients prior to discharge; established baseline of 62.5%

Year 3 – FY13
9. Expanded Care Transitions Protocol (CTP) to 4 wards
10. Implemented Advanced Transitions of Care (ATOC) model to follow up with patients related to top chronic health conditions (related to the Community-based Care Transition Program (CCTP))
11. Discharge summary timeliness pool grew to include hospitalists, surgery services, and family medicine
12. Assessed our current linkages with community partners for care transitions and instituted learning sessions to improve
13. Successfully increased the percent of patients medically homed to 74.5% (target was 15% above baseline or 71.9%)

Year 4 – FY14
14. Striving to improve discharge summary timeliness for surgery, hospital medicine and family medicine to 90% complete within 48 hours of discharge
15. Admissions team is aiming to have 81.3% of patients medically homed (30% above baseline established in year 2)
16. We will have expanded the Care Transitions Protocol (CTP) to all medical/surgical wards – current FY14 efforts are positioning us to achieve this milestone
17. Our experiences and learnings will be shared in at least two venues to achieve the shared learning component of the DSRIP program
18. We will medically home 93.8% of patients (50% above baseline)

Year 5 – FY15
Final year of the current DSRIP proposal
Delivery System Reform Incentive Pool (DSRIP)

- Delivery System Reform Incentive Pool (DSRIP) demonstration project for public hospitals to maintain Medicaid waiver/DSH funds
  - Public hospital proposals cover five areas of improvement:
    - Infrastructure development
    - Innovation and Design
    - Patient-focused Improvement
    - Urgent Improvement in Care (Common Interventions)
    - HIV Transitions Project
- 30-day Readmission Rate incentives
- Value Based Purchasing incentive program proposed to include a Medicare Spending per Beneficiary (MPSB) scoring element
Community-based Care Transitions Partnership (CCTP)

- Mandated from the Affordable Care Act
- Part of larger Partnerships for Patients initiative
- Goals-
  - improve patient care, reduce cost, reduce readmissions by 20%
- Target population - High Risk Medicare FFS inpatients
- $500 million in funding from 2011 – 2015
- Community Based Organizations (CBO) partner with hospitals and others in community
- Competitive process to obtain funding
- Currently 82 groups funded after four rounds
The Care Transitions Intervention

Results of a Randomized Controlled Trial

Eric A. Coleman, MD, MPH; Carla Parry, PhD, MSW; Sandra Chalmers, MPH; Sung-joon Min, PhD

• Elderly patients transitioning to SNF/home
• Randomized: Intervention group paired with “Transition Coach” (TC) vs. standard care
• Empowerment and education: 4 pillars
  • Facilitate self management/adherence
  • Maintain a personal health record
  • Timely follow-up
  • Knowledge and management of complications
• Education during hospitalization
  • Including meds and med reconciliation
• Phone calls and personal visits by TC post discharge
• N=750

Arch Intern Med 2006
• Project RED
• RCT of 749 hospitalized adults
• Intervention
  – Nurse Discharge Advocate
    • F/U appt, Medication Reconciliation
    • Patient education
  – Individualized instruction booklet
  – Pharmacist call 2-4 days post-discharge
    • Review medications
Project BOOST:
Better Outcomes for Older Individuals through Safe Transitions

Society of Hospital Medicine
The John A. Hartford Foundation
Risk for Readmission Tools

Risk Prediction Models for Hospital Readmission
A Systematic Review

Devan Kansagara, MD, MCR
Honora Englander, MD
Amanda Salanitro, MD, MS, MSPH
David Kagen, MD
Cecelia Theobald, MD
Michele Freeman, MPH
Sunil Krishnan, MD, MSc

**Context** Predicting hospital readmission risk is of great interest to identify which patients would benefit most from care transition interventions, as well as to risk-adjust readmission rates for the purposes of hospital comparison.

**Objective** To summarize validated readmission risk prediction models, describe their performance, and assess suitability for clinical or administrative use.

**Data Sources and Study Selection** The databases of MEDLINE, CINAHL, and the Cochrane Library were searched from inception through March 2011, the EMBASE database was searched through August 2011, and hand searches were performed of

**Conclusions** Most current readmission risk prediction models that were designed for either comparative or clinical purposes perform poorly. Although in certain settings such models may prove useful, efforts to improve their performance are needed as use becomes more widespread.

*JAMA. 2011;306(15):1688-1698*

Only a few included overall health and function, illness severity, or social determinants of health
Risk of Readmission

Repeated admits
Medical co-morbidity
Depression
Male
Insurance status
Age
Race
Married
Regular physician
Polypharmacy

Poor safety performance
Poor quality
Poor safety climate
Living alone
Self perceived QOL

Social/Environmental Data

Administrative Claims Data
Key Components of BOOST Toolkit

• **Standardized Risk Assessment:** Tool for Identification of High Risk Patients (8Ps)

• **Patient-centered Preparation for Discharge**
  – Checklists- GAP, Universal Patient Checklist
  – Use of Teach back Technique
  – Medication Reconciliation
  – Patient-friendly discharge forms
  • Principal Care Provider identification
  • Who to contact with questions/concerns
  • Warning signs/symptoms and how to respond
  • Outpatient appointments
  • Pending tests

• **Standardized PCP communication**

• **72 hour follow-up call for high risk patients**
8P Risk Assessment

- Prior hospitalization
- Problem medications
- Psychological
- Principal diagnosis
- Polypharmacy
- Poor health literacy
- Patient support
- Palliative Care
- *Prior Functional Status

Each associated with risk specific interventions
Risk Specific Interventions: An example

Problem Medications

• Medication specific teaching using Teach Back to patient/caregiver

• Monitoring plan developed and communicated to patient and aftercare providers, where relevant (e.g. warfarin, digoxin and insulin)

• Specific strategies for managing adverse drug events reviewed with patient/caregiver

• Follow-up phone call within 72 hours to assess adherence and complications
What is Care Coordination?

• Care coordination is not a stand-alone service that ends at the practice or hospital’s property line.

• It is a bridge to connect services across the greater care community, cementing the medical (health) home’s foundation as the central hub of patient care and accountability.

• Includes not only the patient, but the patient’s family and community.

- Agency for Healthcare Research and Quality
History of Case Management

Up until 1970’s Model Community Based
Lillian Wald
  • Nurse, 1891
  • Dedicated her life to working in the community, specifically in juvenile asylums, later establishing the Henry Street settlement.
  • Coordinated care for indigent children and families with health assistance and education.

1980’s – DRG’s, HMO’s, HIV/AIDS, Medical Advancements

2000 & beyond – ACA, Value Based Purchasing, ACO’s, Readmission penalties

CM: SW vs Nurse; varying levels of expertise

care coordination process

Advanced Transitions of Care (ATOC)

Patient Assessment / Risk Stratification

Inpatient Discharge planning

Post Discharge Follow up

Analytics

Project BOOST 8 P’s: Owned by team

Multidisciplinary Team collaboration: MD, Nursing, CM, SW, TNS

Coordinate Transitions of Care between Care Settings

Capture and report on data & process, share information

Assessments

Outcomes

Patient

Plan of Care

Interventions

Home Care

Physician

Nursing Home

Community

Hospital

UC San Diego

Health System

Principal / Problem Diagnosis

Polypharm / Problem meds

Prior ED / Hosp

Psychosocial / Prior function

Health Literacy

TNS
Transition Nurse Specialist

• Post MSN: CNS / NP
  • Blended role of Expert Nurse, Case Manager, Community Resource Liaison

• Eric Coleman’s Model: Care Transitions Intervention

• Project RED

• Mary Naylor: Transition Care Model – uses APN’s
Comparison of Nurse Practitioner Standards & Practices vs Case Management Standards

Legal Authority for NP Practice

NPs use standardized procedures to perform medical functions which overlap with MDs (CCR Section 1485).

Section 2725 of the Nursing Practice Act (NPA) provides authority for nursing functions essential to providing health care, for example:

- physical and mental assessment
- disease prevention and restorative measures
- initiation of emergency procedures

An expert nurse role

Standards of Practice: Case Management

Minimizes fragmentation of care within the health care delivery system.

A collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual’s and family’s comprehensive health needs through communication and resources to promote quality cost effective outcomes.
Advanced Transitions of Care (ATOC) - Transition Nurse Specialists (TNS)

**Transition Nurse Specialist** is an innovative role using advanced practice nurses and combines expert clinical skills with standards of case management and community resources model.

ATOC / TNS Highlights:
- TNSs work with Primary Care Managers, specialty clinics and community clinics (appointments and handoffs)
- TNSs make post discharge follow up call within 48 hours post discharge
- TNSs work with skilled nursing facilities post discharge via follow up call and onsite visits
- TNS make home visits and provide feedback to physicians on findings
- Collect data in real time for process improvement and shared learning

Interventions addressing problem areas for high risk patient populations:
- In depth hospital interview
  - Identify need for pharmacy and CTI
- Phone calls addressing:
  - Medication reconciliation
  - Review of red flags for readmission
  - Develop a personal health record (PHR)
  - Establish goals and provide
- Coaching to shift patient to self-activation and management
  - Linkages to care
  - Community resources
  - Coordination for transportation and providers

Our Model:
- 6 TNSs: 1 NP focusing on HIV/AIDS and 5 CNSs with present emphasis in MFFS Cardiology, COPD, Diabetes and ortho/ spine specialties.

Ultimate goal is to provide handoff back to primary care providers, timely follow up with our specialists and linkage to Chronic Disease Case Managers — moving towards a population health model.
Transition Nurse Specialist Team

“A small body of determined spirits fired by an unquenchable faith in their mission can alter the course of history.”

Mahatma Gandhi
ATOC Reduction in Readmission

- MC FFS compared to CCTP: ↓42.9%
- ATOC comparison: ↓24%
- OTOC comparison: ↓30%
HIV Overview
HIV / AIDS Patient Population

• Only one in five patients diagnosed with HIV are on therapy with undetectable viral loads. Of the 1.2 million persons living with HIV in the US, 59% are linked to care, 40% of these are retained in care, 24% are on highly active anti-retroviral therapy (HAART), but only 19% have achieved our primary goal of reaching an undetectable HIV viral load.

• 47% of all HIV+ discharged patients in San Diego County were hospitalized at UCSD.

• 39% of HIV+/aware individuals did not receive any HIV primary medical care.

• The Owen Clinic is the HIV primary care practice for the UCSDHS, serving 3,073 active HIV/AIDS patients and providing 24,880 visits making it one of the oldest and largest HIV clinics nationwide.


(The Ryan White HIV/AIDS Program Services Report 2011)
Owen Clinic Transitions of Care (OTOC) Team

• Dedicated Transition Nurse Specialist/Nurse Practitioner
• Dedicated Pharmacist
• Physician
  • In-patient consult service
  • Weekly rotation
OTOC TNS / NP

- Create inpatient HIV registry
- Initiate early case management for new inpatient HIV cases
  - educate
    - 20% of HIV+ people are not aware of their status
  - assess needs
  - link to care services, including funding
- Facilitate HIV care transition planning including the ambulatory medical home
- Coordinate discharge needs
- Provide timely linkage to the HIV medical home, whether at UCSDHS or within the community
HIV

• Composed of two copies of positive single-stranded RNA
• This RNA codes for the viral genes
• Enclosed in a conical capsid, composed of viral protein p24
• Other viral proteins ensure the integrity of the viral particle, or virion
• Belongs to the Retrovirus family
• Two different strains (HIV-1 and HIV-2) exist, along with multiple subtypes, or clades
  • In the US, HIV-1, clade B predominates
Transmission

• HIV transmission occurs when blood, semen (including pre-seminal fluid), vaginal fluid, or breast milk from an infected person enters the body of an uninfected person.

• HIV can enter the body through a vein (e.g., injection drug use), the anus or rectum, the vagina, the penis, the mouth, other mucous membranes (e.g., eyes or inside of the nose), or cuts and sores (including needle sticks).

• Although HIV is present in many body fluids, transmission is not possible through exposure to these because of the enormous volumes required to be exchanged.
Pathophysiology

- HIV protein attaches to CD4+ cell (a T-lymphocyte) and injects its RNA into cytoplasm
- Utilizing reverse transcriptase, HIV RNA is converted to DNA
- This DNA is imported into the cell’s nucleus and integrated into cellular DNA
- Integration usually occurs within 72 hours of exposure, if transmission occurs
Pathophysiology, cont.

- Once integrated, HIV is reproduced within the cell
- Budding occurs when infected virions are released from cell surface to infect other CD4+ cells
- HIV results in
  - Lymphocytopenia
  - Production of incomplete and nonfunctional Abs
- Within days of transition, HIV virus is detectable in the blood
  - HIV Ab test may remain negative for weeks-months following transmission
Schematic: Viral Life Cycle

1. viral RNA → reverse transcriptase
2. reverse transcription → viral DNA
3. viral DNA → viral proteins → cell nucleus → target cell

Target cell and Cell nucleus are shown within the viral life cycle.
Primary or Acute Infection

• Primary infection is the first stage in HIV disease, during which time HIV begins to establish itself in the body.

• *Acute* infection refers to period of time between when a person is infected and when he or she begins to produce antibodies to HIV, usually six to 12 weeks.

• During the acute infection stage, people will not test positive for HIV antibodies.
Primary or Acute Infection

• Up to 70% of people newly infected with HIV will experience flu-like symptoms, including fevers, chills, night sweats, pharyngitis, and rashes
  • “The worse flu I ever had…”

• Degree of symptoms can often predict prognosis
Schematic: Primary HIV

- CD4
- HIV RNA #1
- HIV EIA
- HIV RNA #2
- HIV RNA #3

Little 9/02

Weeks

Threshold

Below Detection

Months
Viral “Setpoint”

- HIV RNA >100,000 copies/ml
  - ~20%
  - Progression to AIDS 2-5 years
- HIV RNA 10,000-100,000 copies/ml
  - ~70%
  - Progression to AIDS 5-8 years
- HIV RNA <10,000 copies/ml
  - ~10%
  - Progression to AIDS 8-15 years
HIV Disease Progression

- Infection begins when HIV enters into a CD4+ and begins reproducing
  - Infected CD4+ cells are eventually destroyed, thus weakening the immune system gradually
- After a latency period, during which there are no visible signs, the immune system begins to decline more rapidly, and symptoms of HIV begin to emerge
HIV Disease Progression, cont.

“AIDS” refers to the time when the immune system is severely damaged, as evidenced by one of the following:

- A CD4+ helper count of less than 200 per cubic millimeter (mm$^3$) of blood, or
- The presence of certain opportunistic infections or malignancies that would not be found in someone with a normally functioning immune system
Immune System Decline

• Immune decline is detectable through blood tests even before any actual symptoms might be experienced

• Once the immune system is damaged by HIV, infected persons will often experience many symptoms, including skin rashes, fevers, fatigue, weight loss, night sweats, thrush, neuropathy, dementia

• Every system can be affected
AIDS

• Without medication or treatment, most people progress from HIV to AIDS within 8-10 years

• With treatment and medication, the onset of AIDS can be delayed

• A small percentage of people infected with HIV never progress to AIDS
  • Long-term non-progressors
    • ~1% of those infected
    • Asymptomatic, normal CD4 counts
  • Genetic factors, not fully understood
Clinical Categories

• Clinical category A
  • HIV +, asymptomatic or few symptoms

• Clinical category B
  • HIV + with 1 or more HIV-related problems

• Clinical category C
  • HIV+ individual who has an AIDS diagnosis, by CDC’s definition
AIDS-Defining Conditions

- CD4 <200 mm, <15%
- AIDS wasting
  - Loss of 10% of body weight
- Opportunistic infections and/or tumors
HIV Care

• HIV is now considered a manageable, chronic disease
• Progression to AIDS can be delayed, often indefinitely, with treatment
• Timing of treatment initiation varies
• Requires combination of medications to fully suppress, prevent resistance
  • Highly active antiretroviral therapy: “HAART”
Treatment Initiation Considerations

• “Hit Hard, Hit Early”
  • Starting medications (HAART) shortly after transmission increases the chance of improved immune response
  • Maintains healthier CD4s, more robust immune system

• Watchful waiting
  • Since all medications have side effects, this school of thought suggests waiting until medically necessary
HIV Treatment Guidelines

- Consider therapy if
  - CD4s >500

- Strongly consider HAART when
  - CD4s 350-500
  - VL >100,000
  - Complications or co-infections present

- Strongly consider HAART if
  - CD4s 200-350, regardless of VL

- Initiate HAART when:
  - CD4s <200 or < 15%
  - Symptomatic patient
  - Patients in serodiscordant relationships

- In the US: treat ALL patients with HIV, unless compelling reason to postpone
Highly Active Antiretroviral Therapy (HAART)

- **Entry Inhibitors**
  - Interfere with either the fusion of HIV onto the CD4 cell or entry into the cell

- **NRTIs and NNRTIs**
  - Interfere at the first stage of viral replication, preventing the virus releasing into the cytoplasm

- **Integrase Inhibitors**
  - Inhibit ability of HIV to integrate into host’s DNA

- **PIs**
  - Target the last stage of replication, interfering with the production of new virions
Antiretrovirals and Prevention

- Universal access influences prevention by at least 3 levels
  - At the **biological** level, it reduces viral load in bodily fluids, making people living with HIV less likely to pass on their infection.
  - At the **behavioral** level, it encourages individuals to come forward for voluntary counseling and testing.
  - At the **operational** level, it is likely to lead to overall improvements in health systems and better integration of AIDS care.
Further Prevention

- Testing
  - Transmission more likely to occur if status unknown
- Education
  - CDC programs
    - Prevention for Positives
    - “ABC”: Abstinence, Be faithful, use Condoms
Monitoring Treatment Response

- HIV RNA PCR
  - Goal is “undetectable” or VL <20
  - HAART inhibits viral replication, but does not eliminate virus
- CD4
  - Goal is elevated CD4
- Chemistry panel
  - LFTs, Renal panel, Lipids, Glucose/HgbA1C
- CBC
  - Monitor for anemia, neutropenia
Significance of Adherence

- 80-95% adherence to HAART necessary to achieve and sustain viral suppression, and to prevent treatment-limiting mutations

- Studies show that most people achieve 36-75% adherence to HAART in the long-term

- Potential factors affecting adherence include:
  - Complexity of regimen
  - Toxicities and side effects
  - Knowledge deficits
  - Psychosocial issues
Goals of Therapy & Tools to Achieve Goals

- Improved quality of life
- Reduction of HIV-related morbidity and mortality
- Restoration and/or preservation of immunologic function
- Maximal and durable suppression of viral load
- Prevention of vertical transmission
- Prevention of transmission to sexual partners
- Selection of ARV regimen
- Preservation of future treatment options
- Maximizing adherence
- Use of resistance testing
Complications

- Opportunistic Infections
- Superinfection
- Co-Infections
- Metabolic Syndrome
- Psychosocial Issues
- Neurological complications
Opportunistic Infections

• Common opportunistic infections (OIs)
  • Tuberculosis
  • CMV (Cytomegalovirus)
  • MAC (Mycobacterium Avium Complex)
  • Pneumonia, both PJP(PCP) and bacterial
  • Toxoplasmosis
  • Cryptococcal meningitis
  • Candidiasis
O.I.s, continued

• Opportunistic Tumours
  • Kaposi’s Sarcoma
  • Progressive Multifocal Leukoencephalopathy (PML)
  • Non-Hodgkin’s Lymphoma
  • Cervical or anal dysplasia
O.I.s, continued

• Prevention
  • Prophylaxis
    • Antibiotics to prevent PCP, MAC when CD4s drop
    • Antifungals to prevent thrush
    • Antivirals to prevent HSV outbreak
  • PAP smears
    • Cervical and anal
    • Follow-up colposcopy and/or biopsies as needed
HIV SUPERINFECTION

Figure 1. Superinfection of the same cell with 2 genetically distinct strains of HIV is a necessary step for virus recombination to occur.
HIV/HCV

- Co-infection accelerates course of both diseases
  - More rapid progression to ESLD, AIDS
  - Higher viral loads of both infections
  - Increased infectivity potential
- Co-infection may make treatment more difficult, secondary to treatment-limiting side effects
- HIV/HCV co-infection is prevalent
  - 30-50% of HIV+ individuals co-infected with HCV
HIV/HBV

- Up to 40% co-infection in endemic areas
- Complicates treatment
  - Medications overlap
  - Certain HIV medications may lead to HBV reactivation
  - Resistance may develop to medications
Considerations

• All HIV+ individuals should be evaluated for HAV, HBV, HCV

• If not immune, all HIV+ individuals should be vaccinated against HAV, HBV
STDs and HIV

• Increased transmission
  • Increased viral shedding
  • Especially true in presence of ulcerative disease
    • Syphilis, HSV
• Increased HIV viral load
• Increased complications
  • Need for more extensive, prolonged treatment of STD than if mono-infected
Metabolic Syndromes

- Metabolic acidosis
  - Usually secondary to medications
  - Mitochondrial dysfunction leads to lactic acidosis
    - Fatigue, SOB, muscle aching/pain
  - Unchecked, this is fatal
Metabolic Syndromes, continued

• Lipodystrophy
  • Fat redistribution syndrome

• Glucose intolerance
  • Frank diabetes

• Hyperlipidemia
  • May progress to cardiovascular disease
Fat Redistribution Syndrome
Psychosocial Issues

- Depression
- Substance use/abuse
- Stigma
- Lack of social support
Neurologic Complications

• Peripheral neuropathy
• Meningitis and encephalitis
• HZV ("shingles")
• Cognitive impairment
• Progressive multi-focal leukoencephalopathy (PML)
The HIV Transition Nurse Specialist/NP Role

• Ensure that patients have an HIV medical home of their preference
• Coordinate with inpatient pharmacists to provide a MedActionPlan
• Monitor all hospitalized HIV positive patients
  • Assess labs
    • Are they current?
    • Is patient undetectable?
  • Determine appropriateness of HIV medications
• Post discharge
  • Communicate with PCP re: hospital stay
  • Follow-up with discharged patient
    • Adherence to discharge plan
    • Follow-up visit with PCP within 7 days of discharge
    • Weekly calls, as needed, until linked into care
Patients Served Since Onset of Program

- Data gathered from in-patients hospitalized between July – Dec 2013
- N= 283
- Demographics
  - Gender
  - Race/ethnicity
  - Age
HIV / AIDS Patient Population

- 80% of HIV-positive people are aware of their status
  - 59% are linked to care
  - 40% of these are retained in care
  - 24% are on highly active anti-retroviral therapy (HAART)
  - 19% have achieved our primary goal of reaching an undetectable HIV viral load

- UCSD treats 47% of hospitalized HIV+ patients in San Diego County

- 39% of HIV+/aware individuals did not receive any HIV primary medical care

- Re-admission rates for the HIV population were 44% higher than the US general population


(The Ryan White HIV/AIDS Program Services Report 2011)
RESULTs July-December 2013

- 283 patients were followed
  - 75% of the patients successfully linked to care within 7 days post discharge

- Readmissions
  - Decreased readmission rates 30%
  - Majority of readmissions (69%) were due to progression of illness
RESULTS, cont.

- At least 50% of the patient population
  - Lacked social support and/or
  - Were homeless or temporarily housed
- Only 23% denied and/or had no documented psychiatric history
  - Psychiatric diagnoses
  - Substance abuse
- 80% of patients contacted post-discharge required further assistance / problem solving from TNS/NP
Patients Identified With Additional Needs

- Total # of Pts w/ needs
- Lab Work
- No PCP
- Other

- Total # of Pts w/ needs
- Lab Work
- No PCP
- Other

UC San Diego HEALTH SYSTEM
Patients’ Lab Work

- Total # Patients with Problems Identified
- CD4<200
- HIV RNA detectable
Linkage to Care

Time to f/u appointment

- ≤7 days
- > 7 days
Case Study

• O.R. is a 59 y.o. Spanish-speaking patient
  • h/o HIV, HSV,. Condyloma
  • h/o SCC, NHL (in remission)
• Hospitalized 2012-2013
  • Multiple admissions, up to 5 months/episode
  • Required IV foscarnet for persistent scrotal lesions
  • Transitioned to Infusion Center mid-2013
    • Agitation at Infusion Center → readmission
  • Team: CM, IHSS, MD, Pharmacy, TNS/NP
Additional Interventions: CTI Transition Coach / Pharmacy

On identified subset of patients

- Hospital visit
- Personal Health Record
- Home visit
- Follow up phone calls
- Coaching for self management

CTI Advanced intervention

- Homemaker, personal care attendants, transportation

✓ Communicates any concerns or problems to TNS/NP for resolution
Innovations in Transitions of Care

Highlights:

- Care Transitions Protocol
  - Standard of practice
  - Consistency
- Interdisciplinary Rounds
- Teach back
- Transition Coaches (TC)
- Transition Nurse Specialists (TNS)
- Pharmacist interventions
- Care Transitions Interventions (CTI)
- Post Discharge Follow up: Telephonic and home visits
- Linkage to care & timely follow
GOAL: Utilizing NPs in TNS role to reduce preventable admissions, improve linkage to care, eliminate gaps across care continuum for improved patient outcomes
Future

LOOKING TO THE FUTURE
Future For Nurse Practitioners in Role

• Work with area Universities on developing nursing curriculum on Transitions of Care specific to this role
• Increase number of Nurse Practitioners in this TNS role with specific disease populations
• Utilize NPs to fullest scope of practice
• Integrate role into primary care setting
  • First post discharge follow up visit
  • Follow a panel of patients
Questions / Comments