

Poster Session

Graduate Posters

1. Evaluation of Patient Knowledge about HIV Resistance
Mary Shoemaker, RN, BS, MPH Student
2. Readiness and Adherence: A Phenomenologic Study of HIV+ Persons Who are Successful in Adhering to Treatment
Maithe Enriquez, MSN, RNC, PhD(C)
Nancy Lackey, RN, PhD
3. Gay Identity, Battering and HIV Risk Behaviors in Men Who Have Sex With Men: An Empirical Test of a Theoretical Model
Michael V. Relf, PhD, RNCS, ACRN, CCRN

Posters

4. Correlates of Sleep in HIV Infected Individuals
Donna H. Taliaferro, RN, PhD
6. Survivor: Herbie's Challenges Through Heroin to HIV to Herbs
Catherine A. O'Connor, MSN, RN, ACRN
Carol A. Patsdaughter, PhD, RN, ACRN
7. The Use of Recombinant Human Growth Hormone For Dorsocervical Fat Pad Accumulation in a Patient on Highly Active Antiretroviral Therapy
Gary Richmond, MD
Vernon Appleby, RN
Tara Strawbridge, RN, BSN, ACRN
8. Development of the HIV Tolerability of Medication Assessment (TOMA) Instrument
Carolyn Sipes, DNSc, RN, CNS-C
Sande Gracia Jones, PhD, ARNP
Elaine Kauschinger, MS, ARNP
Charles Buscemi, MS, ARNP
Christina Joy, DNSc,
Bethsheba Johnson, NP
Belinda Brown, ND, NP
Barbara Berger, PhD
Michael Grodesky, NP
Bill Burman, MD
9. The Antiretroviral Medication Complexity Index
Marcia McDonnell, DSN, RN, FNP
Colleen Dilorio, PhD, RN
10. Correlates of Complementary Therapy Use in Persons with HIV Disease
Kenn M. Kirksey, PhD, APRN, BC, CEN
Mary Jane Hamilton, PhD, RNC
Angela L. Hudson, PhD, RN
Mary Holt-Ashley, PhD, RN, CNAA

William L. Holzemer, PhD, RN, FAAN

11. Language – A Barrier To Successful Outcomes To HAART
Keith P. Huber, RN, ACRN
Betty Benivegna, RN, ACRN, CPN
Paola Jasso, PharmD
Elizabeth Barton
Kathleen K. Graham, PharmD
13. The Problem of Antiretroviral Adherence: A Model for Intervention
Nancy Radcliff Reynolds, PhD, RN, CNP
14. Structured Treatment Interruption – An Information Sheet for Nurses and a Teaching Tool for Patients
Janet Forcht, RN, MPH
Karen Cavanagh, RN, BSN, ACRN
Richard Hutt, RN
Maura Laverty, RN
15. Competency Based Nursing Certificate in HIV/AIDS Counseling and Patient Care Management for African Nurses
Karen Ivantic-Doucette, MSN, FNP, ACRN
Sr. Genovefa Maashao, PHN
Madeline Wake, PhD, FAAN
16. HIV Resistance Testing (RT) and Viral Fitness – A Case Study
T. Young, NP
J. Gisvold, NP
S. Follansbee, MD
T. Wrin
N. Hellmann, MD
17. The Second Wave of HIV Nursing: Caring For Self – Body, Mind & Spirit
Onnie Lang, ACRN, MA
Esther L. Johnson, RN, C, BSN, PHN, CHT
Marianne Gallagher, RN
18. Interventions to Improve Compliance With Tuberculin Skin Testing (PPD)
Joan Vilen, RN, ACRN
MaryRose DeFino, MS, RN, C
Judith Schragger, MSN, RN
19. Development and Implementation of Patient Data Flow Sheets
Cindy Brown, RN, C

Abstract Session I

Practice

New Patient Intake Process

Madeline Bronaugh, RN, ACRN, C.MSN and Linda McCaig, RN, ACRN

*DHHS Guidelines for the use of Antiretroviral Agents in
HIV Infected Adults and Adolescents – A Nursing Viewpoint*

Suzanne Willard, MSN, CRNP, ACRN

Clinical Utility of HIV Resistance Assays – A Case Study

Thomas Young, MS, NP, ACRN

New Patient Intake Process
Madeline Bronaugh, RN, ACRN, C.MSN
Linda McCaig, RN, ACRN
University Hospital Health Alliance, Cincinnati, OH

Background: This Infectious Disease Center is part of a University based, teaching complex. This center interviews approximately twenty newly diagnosed HIV+ or transfer of care patients per month. Traditionally, the process was led by research staff and the staff was primarily unlicensed assisted personnel. It took about four to six weeks to schedule a new patient in the system. As you are aware HIV/AIDS patients may be faced with co-infections and complex social needs which may require emergent and adequate assessment and referrals. Time is of the essence in meeting these needs.

Purpose: To address the needs of new patients into our system within two weeks of the initial phone call, utilizing a systematic format starting with the initial phone call to the first physician appointment incorporating a multidisciplinary approach. We wanted the new patient to feel welcome into our system which would encourage return and follow up. Also, we wanted our patients to be aware of all of the services available at the center.

Methods: A new patient intake committee was formed consisting of the medical director, clinic nurse manager, clinical trials nurse manager, continuous quality improvement nurse, nurse clinician, financial counselor, registration, case managers, outreach staff, clinic and research staff. A systematic approach was identified utilizing a two visit format. The intake specialists are designated licensed personnel who have received formal training by the state and scripting for the identified roles.

Results: This process has been in effect for over one year. Approximately two hundred and twenty patients have entered the system. A survey conducted six months into the process was favorable. We are in the process of conducting another survey.

Conclusions: Health care providers must be flexible and have the ability to identify and address the concerns of patients entering the health care system. New patients entering our systems have benefited from a systematic process.

Implications: Incorporating principles of a new patient intake process has enhanced the care that our patients are receiving by increasing appointment keeping behavior and decreasing co infections (morbidity).

**DHHS Guidelines for the use
of Antiretroviral Agents in HIV Infected Adults
and Adolescents – A nursing viewpoint
Suzanne Willard, MSN, CRNP, ACRN**

MCP/Hahnemann University, Philadelphia, PA, USA

Background: The Department of Health and Human Services has hosted a panel of experts for formulation of treatment guidelines for the management of HIV disease. In the year 2000 a nurse was added to the panel of physicians, pharmacists and community activists.

Purpose: The purpose of this presentation is to present the information that is covered in the Guidelines as well as highlight nursing's input in their formulation.

Conclusions: The management of HIV disease is a complex one that requires a multi-disciplinary approach. This review of the guidelines will provide nurses with the tools to implement them into their every day practice.

Implications: Nurses will understand the importance of their role in treatment decisions of individuals living with HIV disease.

Clinical Utility of HIV Resistance Assays - A Case Study

Thomas P. Young, MS, NP, ACRN (1,2)

Laura Maroldo-Connelly, PA-C (1,3)

(1) ViroLogic, Inc., South San Francisco, CA

(2) Kaiser Permanente Medical Clinics, San Francisco, CA

(3) West Midtown Medical Group, New York, NY

Topic: Resistance testing (RT) has long been used to guide antimicrobial therapy in infectious disease and the use of genotyping (GT) and Phenotyping (PT) assays in clinical practice for pts. with HIV disease in increasing. One of the challenges of using these assays has been determining the clinical utility of the data provided and the decision of which assay to utilize. Although now recommended by the Department of Health and Human Services (DHHS) and the Int'l AIDS Society (IAS) as standard of practice for pts. failing therapy there has been no specific recommendation on which assay to utilize.

Problem: While both assays can assist the provider in selecting effective drug combinations, GT mutation patterns are not fully defined or predictive or phenotypic responses. The following outlines the advantages/disadvantages of both assays. GT: VL required (1000 c/ml) measures (mutations sequence) advantages [lower cost, easy to perform, shorter turn around time (TAT) in some labs] disadvantages [correlations between GT/PT not clearly defined, many mutation patterns not defined/understood, qualitative measure]. PT: VL required [500-1000 c/ml] measures [IC50 or IC90, fold change in susceptibility] advantages [direct measure of drug susceptibility, quantitative, new drugs readily added to assay] disadvantages [more expensive, longer TAT in some labs, clinical cut-off levels not established for all drugs].

Method: The following case study demonstrates the challenges of interpreting a pt's. results and how to integrate the clinical data into a tx plan. Pt. "X" is an HIV+GM with a current VL of 148,000 c/ml and a CD4 count of 48; current regimen is LPV, d4T, 3TC, ddI, reports "good" compliance. Past tx history of multiple NRTIs and PIs. Both a GT/PT was performed on the pt. sample.

Findings/Conclusions: RT mutations at: M41L, K43E, E44D, V60I, D67N, V75M, K101E*, Y181C*, M184V, G190A*, T215Y, K219N, L301I [all data not shown; *NNRTI associated mutations]. These mutations predict broad cross-resistance to NRTI and NNRTIs, PR mutations at: L10I, M46I, I54V, L63P, I84V, L90M [all data not shown]. The mutation pattern suggests broad cross-resistance to all PIs despite the absence of the D30N (1° mutation for NFV). Phenotypic analysis demonstrated decreasing susceptibility to all NRTIs except ddC and decreasing susceptibility to all PIs including LPV. Interestingly, the pt. demonstrated hypersusceptibility to delavirdine. This case demonstrates the complexity of GT predictions. The PT assay can help to quantitatively select the maximum number of potentially active drugs in a regimen. Clinically these findings have implications for virologic outcomes, QOL and cost management. Further monitoring of future data is warranted.

Abstract Session II
Education/Administration

Positive Choices for Life

Susan Nibert, RN

Reaching Out to the Community

Tony Adinolfi, MSN, RN, CNS, ANP, ACRN

AIDS in Aruba: The Caribbean Experience

Sande Gracia-Jones, PhD, ARNP, ACRN, C, CS

Positive Choices for Life

Susan Nibert, RN

*Southern Nevada Area Health Education Center
Pacific AIDS Education and Training Center*

Positive Choices for Life: Studies have shown that education plays a key role in helping PLWHs adhere to their medication regimes and enhance their ability to cope with the disease on a daily basis. This philosophy is the basis for the Positive Choices for Life Program.

It is the hope that everyone who is diagnosed with HIV/AIDS will be given the opportunity to empower themselves through education. There is a model to centralize HIV/AIDS case management in Nevada, and patient education/adherence is a key component. Positive Choices for Life is integrated into this new case management system.

Core subjects are presented at each workshop by local HIV/AIDS service providers and health care professionals. The topics were developed for the newly diagnosed; people living with the disease, but have had little or no education about the disease; and family members and/or significant others who provide support for the PLWH.

Though it is highly recommended that individuals complete all the workshops in sequence, it is not mandatory. Each workshop will be presented in succession, once a week on a continuous basis to provide everyone an opportunity to make up missed workshops or to attend specific components.

In conclusion, Positive Choices for Life, and educational adherence program for those infected and affected by HIV, empowers PLWHs to adhere to medical care regimes. HIV/AIDS service providers and health care professionals can take time to reach out to PLWHs and their families.

Reaching out to the Community

Tony Adinolfi, MSN, RN, CNS, ANP, ACRN
Duke University School of Nursing, Durham, NC

Background: The changes that occur in the treatment of people living with HIV/AIDS are difficult to keep up with, especially for clients. For the last five years, the community advisory boards (CABs) of two HIV-outpatient clinics of medical centers in the southeast have conducted a free, community event that brings together those infected and affected by HIV/AIDS. During this event moderated by a nurse practitioner, physicians, peer counselors, people living with HIV/AIDS, a motivational speaker and representatives from the pharmaceutical industry share information about the latest advances in care. The title of the event, the Annual HIV/AIDS Treatment Update: Hope for people living with HIV/AIDS has been more successful every year, based on attendance and feedback.

Purpose: This type of event proves to be successful year after year and clients look forward to attending the forum. Old friends see each other and new friends are made.

Methods: Planning starts in the fall with CAB members (volunteers) from the education subcommittee developing a timeline for activities. Major activities include: publicity, securing an appropriate venue, securing funds, delegating responsibilities, getting commitments from speakers and logistics including sign language and Spanish translation. This year, approximately 500 people infected and affected by HIV/AIDS attended the forum. Fourteen major pharmaceutical companies were represented. Two well-respected infectious disease physicians discussed current and future treatment, including topics such as drug resistance, drug holidays and new therapies such as entry inhibitors. A young African American woman who was born with HIV told her story and talked about her experiences with prejudice and hope. Additionally, a panel of two peer counselors and two people living with HIV/AIDS told their stories of empowerment, participating in clinical trials and hope for the future.

Conclusions: This type of educational community event is one method of addressing the information needs of patients and the community. Clients get to see their health care providers outside of the clinic and exchange information that improves the quality of their lives.

Implications for Practice: Other health care facilities could implement a similar program based on the demonstrated success of the forum. Patients, families and supporters, and health care providers, have an opportunity to share current information about HIV/AIDS in a comfortable environment.

AIDS in Aruba: The Caribbean Experience

Sande Gracia Jones, PhD, ARNP, ACRN, C, CS
Florida International University School of Nursing, Miami, FL

Background: Over the past decade, HIV has become a silent epidemic in the Caribbean. Although the global impact of HIV has been widely discussed, less attention has been placed on HIV in the Caribbean islands. The rate of HIV infection in the Caribbean region has now become the second highest in the world, higher than any region of the world except Sub-Saharan Africa, and the highest of the American hemisphere. WHO and UNAIDS has estimated that 57,000 adults and children in the Caribbean region were newly infected with HIV in 1999, and an estimated 360,000 adults and children were living with HIV/AIDS. HIV in the Caribbean has a pattern of heterosexual transmission, which has implications for the design of population-specific prevention programs (De Grouland, Wagner & Camara; 1998, Narain, Mahabir, Hospedales & Bassett, 1989; Piot, Plummer, Mhalu, Lamboray, Chin & Mann, 1988). Concerted attention is essential for effective prevention and education programs in the Caribbean, to decrease the rate of HIV transmission (UNAIDS, 2000).

Purpose: The purpose of this presentation will be to discuss the impact of AIDS on the Caribbean islands, and describe HIV prevention/education projects that have been undertaken in the Caribbean region over the past two decades. A discussion of HIV prevention and education activities being conducted on the Dutch island of Aruba will highlight how a multidisciplinary health team can be an impetus for HIV action at the community level.

Method: In June 2000, the first Aruba Conference on AIDS was held to educate health care providers and raise awareness about community issues for HIV prevention efforts. The conference was the brainchild of a multidisciplinary team at Dr. Horatio Oduber Hospital in Oranjestad, Aruba. Concerned about the increasing hospitalization rate for PCP, and the delay in HIV/AIDS diagnosis for patients in the community, the team organized the all-day program which drew over 100 participants from various islands. While medical questions focused on drug therapy, nursing concerns related to opportunistic infections, stigma, and social support. The team's ongoing follow-up, along with new activities by the UNAIDS HIV project in Aruba, will be described.

Conclusion: A need still remains for culturally-specific, theoretically-based HIV prevention and education interventions for the Caribbean.

Implications for Practice: Lessons learned by nurses in the USA during the early days of the AIDS epidemic should not be forgotten, because they can be adapted and used to help our neighbors in less-technologically developed countries, who do not have access to potent drug therapy.

Abstract Session III Research/Adherence

*Tailored Adherence Interventions Based on the
Transtheoretical Model of Change*

Deborah Konkle-Parker, MSN, FNP, ACRN

Creating a New Normal

*: A Grounded Theory Study of Medication Adherence
in Persons Living with HIV*

Sheila Bunting, PhD, RN and Deborah Ivins, BA

HAART Adherence in Persons with HIV/AIDS and Chronic Mental Illness

Jeanne Kemppainen, PhD, RN; Marti Buffum, DNSc, RN;

William Holzemer, PhD, RN, FAAN; Peter Jensen, MD

and Patrick Finley, PharmD

Personality Traits and Adherence to Antiretroviral Therapy

Mary Pat Mellors, PhD, RN; Judith Erlen, PhD, RN, FAAN;

Susan Sereika, PhD and Richard Ptachcinski, PharmD

Tailored Adherence Interventions Based on the Transtheoretical Model of Change

Deborah J. Konkle-Parker, MSN, FNP, ACRN

University of Mississippi Medical Center, School of Nursing, Jackson, MS

Objective: To test the effectiveness of interventions based on the Transtheoretical Model of Change (TTM) in improving medication adherence.

Design: This study used a randomized experimental three-group repeated measures design. The population was HIV-infected participants in a public hospital outpatient clinic in Southern United States. The sample included 95 eligible participants, identified as those who were either starting on HAART or had reported <90% adherence to existing HAART. Enrollment occurred from June – Dec. 2000 and was completed by June 2001.

Methods: Participants were randomized into three groups: 1) usual care, 2) individualized letters with a common template, tailored to the individual's readiness to adhere to medicines, self-efficacy for adherence, and personalized pros and cons, and 3) individualized telephone calls using the same tailoring. Self-reported medication adherence and changes in self-efficacy and readiness to adhere were assessed three times during the study period. Both the letter and telephone interventions were completed after each of two clinic visits. Questionnaires were completed at baseline, and at the next two clinic visits, reporting adherence in the week prior to this clinic visit, as well as perceived self-efficacy and readiness to adhere.

Findings: Preliminary data collection reveals a nonsignificant trend of either intervention group in improvement in readiness to change, self-efficacy, and outcome expectancy, with the letter group performing slightly better than the telephone group. There were no significant differences in adherence. Data collection will be complete June 1, 2001, and complete data analysis will follow.

Conclusions: Preliminary data analysis shows that tailored letters or tailored phone calls show a trend toward improvement in self-efficacy and readiness to change, which should translate into improvements in adherence if the time table of this study allowed. More complete data analysis will be available in the summer of 2001. More research is needed to show clinical differences in these trends, and to identify the important aspects needed in the tailoring process.

Implications for Nursing Practice: Tailored telephone calls and letters are interventions that nurses can perform in order to improve adherence to antiviral medications, which would translate into much improved clinical outcomes for patients.

**Creating a New Normal: A Grounded Theory
Study of Medication Adherence in Persons
Living with HIV**

Sheila M. Bunting, Ph.D., RN

*Associate Professor of Community Health Nursing,
Medical College of Georgia, Augusta, GA*

Deborah Ivins, BA

*Social Worker III/Patient Educator, Department of Medicine
Medical College of Georgia, Augusta, GA*

Adherence to antiretroviral medications is now a key component to maintaining health for persons living with HIV/AIDS (PLWH). However, in HIV disease, adherence is a major challenge because of the numbers and timing of medications and the distressing medication side effects. The purpose of this study was to construct a grounded theory of barriers to and facilitators for medication adherence in the particular population of PLWH attending an outpatient infectious disease clinic. Twenty participants had the study explained to them and gave informed consent to a semi-structured interview at the clinic or by telephone. Of those interviewed, 11 were men and 9 were women; 11 were African American, 8 were European-American and one was Hispanic American. These were mainly poor individuals living in rural Southeastern US. Ages ranged from 23 to 49 with a mean of 38 years. Interviews were recorded and transcribed. The researcher submitted the data to intensive analysis to derive a grounded theory of adherence based on the concepts and relationships identified by the participants.

“Creating a New Normal” was the basic socio-psychological process that participants used to deal with the reality of their diagnosis and their need to adhere to treatment regimens. Within this basic process, participants identified barriers, facilitators, and strategies around medication adherence. Barriers were: Forgetting the Time, Not Paying Attention, Fear of the Medications, and Resistance to Pills Because they Represented Illness. Facilitators included Staff and Family and Reinforcement Participants employed such strategies as Cuing, Minimizing the Threat, Emphasizing Normalcy, Tying Medications to Routine Acts, Focusing One’s Whole Life on the Taking of Pills (Letting My Medications Run My Life), Covering, Recovering from The Diagnosis and Developing a New Identity.

This substantive theory that emerged from the words of these participants may be tested and refined by practicing nurses to see if the reality of their own clients has processes similar to this group of clients.

HAART Adherence in Persons with HIV/AIDS and Chronic Mental Illness

Jeanne K. Kemppainen, Ph.D., RN, CNS, **VA Palo Alto Health Care System**

Marti Buffum, DNSc, RN, *Associate Chief, Nursing Service for Research, VA SF*

William Holzemer, Ph.D., RN, FAAN, *Professor, University of CA, San Francisco*

Dr. Peter Jensen, MD, *Chief of Clinical Infectious Disease, VA San Francisco*

Patrick Finley, PharmD, *Assoc. Professor Pharmacy, Univ. of California, SF*

Background: Studies show that rates of HIV/AIDS are higher in persons with chronic mental illness than in the general population. While patients with mental health problems traditionally have difficulty adhering to their psychiatric medications, the added requirements of rigorous and complex regimens that accompany the newer highly active antiretroviral therapies create an added challenging dimension to their care and treatment.

Purpose: The purpose of this study was to identify unique factors and circumstances that affect adherence to HAART therapies in persons dually diagnosed with HIV/AIDS and chronic mental illness.

Method: Through the use of the critical incident technique developed by John Flanagan (1954), participants were asked to recall specific incidents that affected their adherence to HIV medications.

Results: The sample included 35 males (81%) and 8 females (19%) receiving care through a day treatment center for dually diagnosed patients in the Bay Area of Northern California. Participants were diagnosed with HIV/AIDS and one of the following psychiatric disorders: psychosis (n=9, 21%), Bipolar/dysthymic disorder (n=9, 21%), anxiety disorder (n=3, 7%), personality disorder (n=4, 9%), and major depression (n=17, 40%). The average number of prescribed medications included 2.9 (SD=1.4) for HIV/AIDS, 2.0 (SD=.99) for psychiatric disorders, and 3.2 (SD=2.5) for other chronic health problems. Strategies used to facilitate HIV medicine adherence included simplified medication regimens, learning to manage distractions, provider management of pharmacy refills and filling medication pillboxes, and maintaining a consistent daily routine. Adherence barriers included substance use, difficulty negotiating pharmacy refills for multiple complex regimens, slow onset of beneficial medication effects, problems with impulse control and judgment, depression, and lack of understanding about HIV and related treatment. Since their focus of attention was on alleviating more urgent and distressing symptoms, participants frequently placed a higher priority on adherence to psychiatric medicines and those prescribed for other health problems.

Conclusion: Recognition of the varied responses provides important information for developing relevant adherence education programs, and for testing adherence interventions.

Personality Traits and Adherence to Antiretroviral Therapy

Mary Pat Mellors, PhD, RN

Judith A. Erlen, PhD, RN, FAAN

Susan M. Sereika, PhD

Richard J. Ptachcinski, PharmD

University of Pittsburgh School of Nursing and School of Pharmacy

Pittsburgh, Pennsylvania, USA

Background: Personality traits may potentially influence the ability to change medication-taking behavior. While researchers propose a theoretical association between personality and adherence, few studies have examined the relationship between these variables.

Purpose: The Five-Factor Model of Personality guided this research describing the relationship between personality traits and adherence to antiretroviral therapy.

Method: A sample of 74 subjects (50 males, 24 females; 45 white, 29 non-white) from community sites was recruited. The mean age was 40.27 years. Personality traits were measured using the 60-item NEO-FFI, measuring five domains of personality (neuroticism, extraversion, openness, agreeableness, conscientiousness). Dose and interval adherence was assessed using electronic monitors and diaries.

Results: Mean scores for the NEO-FFI subscales were 21.46 (± 9.25) (neuroticism), 26.67 (± 7.63) (extraversion), 28.22 (± 6.30) (openness), 29.64 (± 6.07) (agreeableness), 32.32 (± 7.47) (conscientiousness). Mean percentage dose adherence scores were 43.82 (± 33.44) and mean percentage interval scores were 29.94 (± 27.08). Significant positive correlations were found between openness and dose adherence ($r = .266$, $p = .022$), and between conscientiousness and interval adherence ($r = .248$, $p = .045$).

Conclusions: Compared to normative data, neuroticism and conscientiousness scores were higher; agreeableness scores were lower. Adherence in this sample was found to be poor for missed doses and dosing intervals. The relationship between conscientiousness, openness, and adherence may reflect a situational effect such as patient versus provider directed treatment.

Implications: Future research needs to focus on designing individualized interventions based on the interaction between personality and contextual factors. Practice implications include an understanding that adherence to HAART continues to be significant problem and that personality traits can potentially influence medication-taking behavior.

Abstract Session IV Research

*The Effect of Caffeine Reduction of Sleep and Well-Being
in Persons with HIV: Nursing Implications*

H. Michael Dreher, D.N.Sc., RN

Biomarkers Associated with HIV-Related Fatigue

Julie Barroso, PhD, ANP, CS

The Effect of Caffeine Reduction on Sleep and Well-Being in Persons with HIV: Nursing Implications

H. Michael Dreher, D.N.Sc., RN

*Postdoctoral Fellow in Nursing Sleep Research, School of Nursing and
Center for Sleep and Respiratory Neurobiology, School of Medicine
University of Pennsylvania, Philadelphia, PA*

INTRODUCTION: Sleep pattern disturbances in persons with HIV have been reported to be as high as 79%, far exceeding the proportion found in healthy populations.

Purpose: The purpose of this study was to test whether there were any differences in sleep and well-being between a group of persons with HIV (60% AIDS and 40% HIV+ only) who reduced their caffeine intake from baseline by 90% or greater for 30 days (n=44) versus a group of persons with HIV who continued their usual caffeine consumption (n=44).

Sample: An international sample of 221 HIV+ subjects, recruited from print sources and the Internet, initially requested entry in the study. Of these, 88 subjects successfully completed either protocol. Each subject reported significant sleeping difficulties (mean pre-PSQI score = 11.06), taking antiretroviral medication, and consuming caffeine daily (mean mg/caffeine/day = 476). Mean CD4 T cells were 423 and mean HIV Viral Load was 16,414 copies/ml, although 60% reported “less than 400” or “undetectable viral loads.”

Method: An experimental design with convenience sampling and stratified random assignment was used. Subjects were administered pre- and post-test Pittsburgh Sleep Quality Index (PSQI), Perceived Well-being Scale-Revised (PWB-R), and MOS-HIV Health Survey instruments. Health status (MOS-HIV summary scores) was used as a covariate.

Results: There was a significant difference between the two groups on ANCOVA analysis for sleep (PSQI) ($F = 14.032, p < .001$), identifying a 35% improvement in sleep among experimental group subjects. There was no significant difference between the two groups on ANCOVA for well-being (PWB-R) ($F = .111, p = .739$). Last, caffeine self-regulation behaviors were identified as self-care interventions for persons living with HIV, with 78.2% of subjects indicating caffeine self-regulation was important to health.

Conclusions: Persons with HIV may have altered caffeine metabolism. High levels of caffeine consumption may have exacerbating effect on already prevalent HIV-related sleep pattern disturbances and significant reductions of caffeine may improve (though certainly not eliminate) sleep quality.

Biomarkers Associated with HIV-Related Fatigue

Julie Barroso, PhD, ANP, CS

University of North Carolina at Chapel Hill School of Nursing, Chapel Hill, NC, USA

Objective: To determine the physiological and psychological factors that are associated with HIV-related fatigue.

Design: A correlational pilot study.

Population: Adults with HIV-related fatigue.

Setting: Raleigh/Durham/Chapel Hill, NC. All data were collected at the General Clinical Research Center of the University of North Carolina Hospital.

Sample: 40 adults (29 men, 11 women), with HIV-related fatigue; mean age was 39 years; mean number of years of education was 12; median monthly income was \$579. With regard to ethnicity, 28 were African American, 11 were Caucasian, and one was 'other.' The average number of years since diagnosis with HIV was 7.65. Thirty-four of the 40 had used recreational drugs and/or alcohol in the past, and 12 were still using them; 7 were in a program of recovery. Nine of them were positive with Hepatitis C; however, they did not differ from the rest of the group on any of the variables.

Years Study Conducted: 1999-2001

Concept of variables studied: HIV-related fatigue, anxiety, depression, immune function, thyroid function, liver function, CBC, and HIV viral load.

Methods: One data collection point, at which participants completed the HIV-Related Fatigue Scale, the State-Trait Anxiety Inventory, the Hospital Anxiety and Depression Scale, and the Beck Depression Inventory. Blood was drawn to assess the above mentioned physiological variables.

Findings: The mean fatigue severity for the group was 6 (on a 1-10 scale). The mean score on the BDI was 17, greater than 14 is indicative of depression. Fatigue severity was significantly correlated with depression, state anxiety, and trait anxiety. There was no correlation between fatigue scores and CD4 count or HIV viral load. Thyroid stimulating hormone was negatively correlated with fatigue severity. Cluster analyses revealed 2 groups: one that was severely fatigued was marked by high levels of anxiety and depression, and another had the combination of low hemoglobin, low hematocrit, and low CD4 count.

Conclusions: Further research, particularly longitudinal research, is needed into this complex phenomenon.

Reframing Feelings & Behaviors: Understanding the Psychosocial

Patti O’Kane, MA, RN

Outline

- I. Psychosocial Factors that Affect Mood and Thinking
 - a) When does a stressor become a psychiatric problem
 - b) How to assess mood and thinking: learning to “fish” for information.
 - c) What is a mental status and how is it assessed (an Evelyn Wood Speed review of essential features of a mental status exam)
 - d) Loss & Bereavement-The impact of the anniversary reaction
- II. The Hidden Epidemic of Dysthymia
 - a) What is Dysthymia
 - b) How to recognize sub-clinical depressions
 - c) Treatment strategies and options
- III. Posttraumatic Stress Disorder
 - a) Brief comments about PTSD
 - b) How does trauma affect mood, thinking, judgment, etc
 - c) Shame/Guilt as frequent components of trauma
 - d) Is there a relationship between unresolved issues of sexual abuse and HIV
 - e) How does symptoms of PTSD affect clients and interfere with adherence
 - f) Using the sexual or GYN histories in initial interviews to identify women who may be at risk for adherence problems
 - g) Why is the epidemic of childhood sexual abuse a hindrance in HIV prevention
- IV. Clinical Case Studies with group participation (depending on audience size) and reflections
 - a) What are we listening for
 - b) Learning to Ask the Right Questions Quickly
- V. Surviving AIDS & Psychiatry: How does the Clinician Care for the Self
Why is an outside “passion” important

Abstract Session V

Practice

*Alterations in Body Composition and Anthropometry
During Structured Treatment Interruption*

Mary Busalacci, RN, I. H. Gilson
and Cade Fields-Gardner, MS, RD/LD

HIV/HCV Coinfection:

Current Treatment and Practice Implications for Nursing
Susan Cournoyer, MS, ANP-C and Anne B. Morris, MD

*Evidence-Based Symptom Management for
People Living with HIV/AIDS*

William L. Holzemer, RN, PhD, FAAN

Alterations in Body Composition and Anthropometry During Structured Treatment Interruption

Mary Busalacchi, RN

I. H. Gilson

Cade Fields-Gardner, MS, RD/LD

Aurora Medical Group, Milwaukee, WI

The Cutting Edge, Cary, IL

Background: Body composition and dimension changes reflecting losses of subcutaneous fat and deposition of truncal fat have been reported in HIV-infected patients using highly active antiretroviral therapy (HAART). Reports have suggested that reversal of these physical changes during structured treatment interruption (STI) does not occur.

Purpose: The purpose of this case observation was to determine the potential sensitivity of alternative anthropometric measures to physical changes during short-term STI.

Method: Prospective observations a series of typical and alternative anthropometric measures at baseline, end of STI, and two months post STI were made. Data points were compared to determine the potential for various anthropometric measures to characterize changes in body dimensions.

Results: Two men and one woman were followed during a treatment interruption as a part of the HIV-I Immunogen (Remune) study. At baseline Male 1 was diagnosed with a dorsocervical fat pad, abdominal enlargement, and peripheral fat atrophy; Male 2 was diagnosed with peripheral fat wasting; and Female 1 was diagnosed with abdominal and breast enlargement and peripheral fat atrophy. Body composition (using BIA), anthropometry, abdominal CT scans, and laboratory data was recorded at baseline, during the study, and two months after resumption of antiretroviral treatment. Interruption of ARV treatment was completed for five weeks (Male 1), 7 weeks (Male 2), and 4 weeks (Female 1). During treatment interruption body weight increased a mean of 2.9 kg for a mean BMI increase of kg/m². Mean increases were seen in fat-free mass (2.0 kg), body cell mass (1.2 kg), and fat (1.0 kg). Anthropometry measures showed an increase or maintenance of fatfold measures, an increase in midarm circumference, a decrease in abdominal circumference. For one patient with a dorsocervical fat pad, the measured area was decreased from 18cm² to 12cm². Breast measure did not change in Female 1. The calculated total abdominal area (based on abdominal circumference) was decreased a mean of 4.2 cm² and the calculated visceral area was reduced by 4.2 cm². Follow-up anthropometry suggested that the decreases seen in visceral area and the dorsocervical fat pad were maintained. Additional information on laboratory values and CT scans will be reported.

Conclusions: Measurements that are specific to areas of observed body dimension changes are likely to be required to adequately characterize and quantify the changes seen during treatment and treatment interruption. Further investigation and validation of these alternative measures are required.

Implications: Patient monitoring efforts can benefit from objective quantification of body composition and body dimensions. Establishing valid measures may help to better define physical changes seen in patients with long-term chronic disease and during STI.

HIV/HCV Coinfection: Current Treatment and Practice Implications for Nursing

Susan Cournoyer, MS, ANP-C

Anne B. Morris, MD

780 Chestnut Street, Suite 30, Springfield, MA 01107

Background: Caring for the person who is coinfecting with HIV/HCV (hepatitis C virus) is becoming an ever-present challenge. The complexity of both infectious processes and the need for concurrent treatment imposes additional burdens on patients. It also requires providers to have an increased awareness of the prevalence of HIV/HCV coinfection and to acquire additional clinical expertise.

Purpose: The purpose of this presentation is to increase the nurse's knowledge of best practices for the treatment of HCV in the HIV positive patient.

Methods: Lecture, audiovisual and case study will be used to create this didactic and interactive session

Conclusion: The full significance of coinfection with HIV/HCV has yet to be realized. The impact of HCV on morbidity and mortality for those infected with HIV is just beginning to be documented and the long-term treatment outcomes for individuals with coinfection are unknown.

Implications for Practice: Deepening one's knowledge of the interrelatedness between HIV/HCV coinfection and the potential impact on morbidity and mortality will improve patient care. Nurses have a key role in educating patients, advocating for treatment, enhancing adherence and managing side effects.

Evidence-Based Symptom Management for People Living with HIV/AIDS

William L. Holzemer, RN, PhD, FAAN

School of Nursing, University of California, San Francisco

People living with HIV/AIDS experience symptoms related to their HIV disease, co-morbidities, and treatments. The purpose of this paper is to review seven evidence-based knowledge statements that provide guidance for the management of HIV-related symptoms. The goal of this management may be to enhance adherence to medications, relieve suffering, and enhance the patient's quality of life. What do we know about the symptom experience of people living with HIV/AIDS? Seven knowledge statements that have been derived from a review of the literature on symptom management in HIV/AIDS are discussed. Each knowledge statement is supported by research findings that provide direction for evidence-based practice regarding symptom management in HIV/AIDS care. The statements include: 1) The patient is the gold standard for understanding their symptom experience; 2) It is inappropriate to label an HIV+ person early in the course of their disease as asymptomatic; 3) Nurses are not necessarily good judges of the patient's symptom experience; 4) Persons with greater intensity of symptoms are less adherent to their medications; 5) Persons with greater frequency and intensity of symptoms have a lower quality of life; 6) The symptom experience may or may not correspond with physiological markers; and, 7) Persons living with HIV report few self-care symptom management strategies other than medications; those they do report were learned from friends and family members, not nurses or other providers. Several investigators have noted that one of nursing's significant contributions to the care of individuals living with HIV disease is in the area of symptom management (Zeller, Swanson & Cohen 1993; Gebbie 1995). In a comprehensive review of the literature on patient care outcomes related to management of symptoms, Hegyvary (1993) concluded that "Outcomes research related to symptom management is an essential adjunct to outcomes research related to mechanisms and treatment of disease (p. 162)." The conclusions from the studies in the review can be summarized as follows: symptoms are a significant issue for persons living with HIV/AIDS; the meaning of living with this symptom experience can only be captured from the person's perspective, quality of life decreases as the severity of symptoms increases; and little is known about the relationship between specific symptom management strategies and symptom status in HIV. Given the current optimistic clinical trajectory for many persons living with HIV/AIDS, we are challenged to develop an understanding of the symptom experience from the client's perspective and enhance the client's knowledge of medical and self-care strategies available to assist symptom management.

Abstract Session VI

Education/Administration

Reducing Perinatal HIV Transmission by Educating Healthcare Providers
Carolyn K. Burr, EdD, RN and Elaine Gross, RN, MS, CNS-C

*Individualized Clinicians Training Program:
A Novel Approach to HIV Provider Education*
Michelle Agnoli, RN, BSN, ACRN; Nathan Linsk, PhD, ACSW and
Barbara Schechtman, MPH

Reducing Perinatal HIV Transmission by Educating Healthcare Providers

Carolyn K. Burr, EdD, RN

Elaine Gross, RN, MS, CNS-C

National Pediatric & Family HIV Resource Center, Newark, NJ

Background: Since 1994, perinatal HIV transmission has been dramatically reduced through use of a zidovudine regimen for pregnant women with HIV infection and their newborns. Despite the success of this intervention and national recommendations that all pregnant women routinely receive HIV counseling and testing, the number of women with HIV infection is increasing and, in some areas of the U.S., HIV testing of pregnant women is low or uneven.

Purpose: A train-the-trainer (TOT)/faculty training model is being used to increase maternal/child health and HIV providers' knowledge about HIV counseling and testing of pregnant women and strategies to reduce perinatal HIV infection.

Methods: The program builds on existing expertise within a state/region through a "train-the-trainer" approach to reach larger audiences of providers. The National Pediatric & Family HIV Resource Center (NPHRC) developed a comprehensive curriculum/slide set using didactic and interactive strategies as well as supporting educational materials. Working with AIDS Education and Training Centers and local agencies in Mississippi and Washington, DC, NPHRC offered seven half-day faculty training workshops (5 in MS, 3 in DC) for 125 participants, of whom 51% were nurses. Target audience for the faculty training were HIV and maternal/child health providers willing to train their colleagues. Local and NPHRC speakers presented the curriculum, discussed case studies, and described and illustrated adult learning approaches. Content included HIV counseling and testing in prenatal care, medical management of HIV in pregnancy, reduction of perinatal HIV transmission, and controversies in perinatal HIV care. Participants were given the slide set/speaker notes, references, and region-specific materials to be used in training. Measures of participants' perceptions of their skills and abilities in nine content areas showed a statistically significant ($p < .001$) increases from pre to post-workshop. Thirty-seven providers contracted to be faculty for others. Six-month follow-up of faculty trainers and their trainees is planned.

Conclusions: A faculty training or TOT model can effectively reach HIV and MCH providers with current information on reducing prenatal transmission. The TOT model builds on existing knowledge, leaves ongoing expertise in the community, and offers an effective approach to reaching large numbers of providers.

Practice Implications: Such an approach can help nurses effectively educate their colleagues about HIV counseling and testing in prenatal settings and can lead to further reductions of perinatal HIV transmission in the U.S.

Individualized Clinicians Training Program: A Novel Approach to HIV Provider Education

Michelle Agnoli, RN, BSN, ACRN

Nathan Linsk, PhD, ACSW

Barbara Schechtman, MPH

Midwest AIDS Training and Education Center (MATEC)

Jane Addams College of Social Work, University of Illinois, Chicago, USA

Background: The goal for all the programs of the Health Resources and Services Administration (HRSA) is to have 100 percent access to high quality health care and 0 percent disparity in outcomes for recipients of HRSA funded programs. In the face that there is a shortage of providers in underserved and minority communities, MATEC has developed a regional Individualized Clinician Training Program (ICTP) to address this need. This is a training initiative for those providers serving HIV clinicians in HIV care.

Purpose: The purpose of the ICTP is to educate providers in the care of HIV positive patients and enhance their proficiency in the care of these patients so they may be considered local experts in treating HIV disease.

Method: Providers (physicians, physician assistants, nurses, nurse practitioners, pharmacists or dentists) can either self-nominate or be referred to the program. After acceptance into the program, the participant is administered a baseline assessment tool and commits to 40 hours of didactic and clinical hours to be completed over a 12 month time period. Participants must complete a minimum of 10 hours of guided reading & study, 10 hours of conference attendance (ID conferences, grand rounds, state/national or professional conferences), 5 hours of community or professional presentation to peers, and at least 12 hours in a Practicum in HIV Clinical Management,

Conclusion: Illinois has had 6 participants in the first year of this program. Three have completed the program and have agreed to stay on as faculty members and ICTP leadership. The remaining 3 participants are continuing to work towards the completion of their curriculum. One of the participants who had completed the program has gone on to be a HIV resource for his community on Chicago's South Side.

Implications: This training initiative has the potential to unite providers in geographical locations in the city of Chicago as well as increase the quality of and access to HIV care in areas most affected by this epidemic.

Evidence Based Practice: What is All the Fuss About?

Carl A. Kirton, RN, MA, ACRN, ANP, BC

Clinical Associate Professor of Nursing
New York University
Clinical Nurse Manager & Nurse Practitioner
Mount Sinai Hospital, AIDS Center

BRIEF CONTENT OUTLINE

1. What is evidence-based practice?
2. Why do we need evidence-based practice?
3. Relevance of evidence to nursing practice
4. Recent examples of evidence based findings
5. How evidence contributes to individual practice
6. Evidence based practice skills
 - a. Asking clinical questions
 - b. Information literacy
 - c. Critical appraisal basics
7. Examples of how evidence influences clinical decision making

BIBLIOGRAPHY

Closs, S.J., & Cheater, J.M. (1999). Evidence for nursing practice: a Clarification of the issues. Journal of Advanced Nursing, 30 (1), 10-17.

DiCenso, A. & Cullum, N. (1998). Implementing evidence-based nursing: some misconceptions. Evidence-Based Nursing, 1 (2) 38-40.

Mitchell, G. (1999). Evidence-based practice: critique and alternative view. Nursing Science Quarterly, 12 (1), 30-35.

McKibbon, K.A., Eady, A., & Marks, S. (1999). PDQ Evidence-Based Principle and Practice. Hamilton, Ontario: B.C. Decker, Inc.

Sackett, D.L., Richardson, W.S., Rosenber, W., Haynes, R.B. (1997). Evidence-based medicine. How to practice and teach EBM. London, Churchill Livingstone.

HANDOUTS

TBA

Abstract Session VII Research

*Lighting the Future:
Incorporating the Patient's Perspective into HIV Research*
April Powers, RN, BSN, ACRN; Sue Marden, RN, MS
and Katherine Wendell, RN, BSN

*The Experiences, Needs and Preparedness of Nurses in
Providing Care to Persons Infected with HIV: Changes Over Time*
Margaret Dykeman, FNP, PhD, RN, ACRN and Claude Olivier, PhD(C)

Lighting the Future: Incorporating the Patient's Perspective into HIV Research

April Powers, RN, BSN, ACRN

Sue Marden, RN, MS

Katherine Wendell, RN, BSN

The National Institutes of Health, Bethesda, MD, USA

Background: New options in the administration of highly active antiretroviral therapy (HAART) that may decrease side effects and increase adherence are currently under investigation. One option, structured periods on and off antiretrovirals, known as structured intermittent therapy (SIT), may show promise in reducing the burden of HAART therapy. The importance of including the patient's perspective into the evaluation of this treatment option was identified by nurse case managers in our clinic. Thus, we designed a comparative study to examine the patient reported outcome, Health Related Quality of Life (HRQL), in HIV patients randomized to receive continuous versus intermittent HAART over time. In utilizing HRQL as an outcome measure in this study, we considered 1) differentiating between the terms Quality of Life (QOL) and HRQL; 2) defining the multidimensional attributes of HRQL; and 3) selecting a variety of instruments to comprehensively measure HRQL.

Purpose: The purpose of this presentation is to assist nurses to better understand the key components to consider when including HRQL as an outcome measure in HIV research.

Methods/Practice: Our current, ongoing study of HRQL in HIV patients undergoing continuous versus intermittent HAART will be reviewed, including the purpose, research questions, sample, instruments, and data collection procedures. Using this study as an example, the importance of HRQL research will be discussed and HRQL will be defined by differentiating it from the term, QOL. HRQL instruments used in the study will be described to include 1) the rationale for the choice of both generic and specific HRQL instruments; 2) other factors to consider in tool selection such as reliability, validity, and respondent burden; and 3) administration of tools via computer technology.

Conclusions: Progress to date of this longitudinal study will be presented including baseline data that may be available. Other patient reported outcomes, symptom distress, and adherence will be discussed.

Implications for Practice: Nurses are in a unique position to conduct research that evaluates the patient's perspective of the beneficial and burdensome aspects of HIV treatment. The new knowledge generated by nurses conducting HRQL research can assist patients with HIV and their families to make informed decisions regarding their treatment.

The Experiences, Needs and Preparedness of Nurses in Providing Care to Persons Infected with HIV: Changes Over Time

Margaret Dykeman, FNP, PhD RN, ACRN

University of New Brunswick, NB, CA

Claude Olivier, PhD(C)

School of Social Work, Memorial University of Newfoundland, Newfoundland, CA

Objectives: 1) To determine the stressors currently faced by nurses re the provision of care for HIV positive persons. 2) To identify the services and supports nurses need to provide quality care to HIV positive persons.

Design: The study used a quantitative survey questionnaire design. Random sampling was used to access a province-wide sample of 200 registered nurses. In addition, purposeful sampling was used to access 80 registered nurses who had experience working with persons infected with HIV (e.g., HIV-experienced nurses).

Population, setting, sample, year study conducted: Of the 70 nurses who completed and returned questionnaires, 51 (73%) reported having knowingly provided care to a person who was HIV positive. Most respondents indicated their workplace setting as either a hospital (41%) or a nursing/special-care home (25%). The 1999 study findings were compared to a similar study conducted in the same province in 1992.

Concept Studied: Examined the problems and feelings of HIV-experienced nurses in relation to providing care to persons with HIV/AIDS. Also, asked questions concerning what nurses believed to be needed for them to competently provide care for the HIV positive individual. Nurses were asked to rate their educational program for HIV/AIDS content and if it adequately prepared them to care for HIV positive persons.

Methods: A survey questionnaire consisting of 26 questions divided into three sections: 1) background information, 2) provisions of HIV-related services, and 3) information/support services and needs, was used to collect the data. All participants were instructed to answer sections one and three, while only nurses who had experience in providing HIV-related care were asked to complete the second section. SPSS was used to obtain frequencies and measures of central tendency. Data was compared to findings from a similar study carried out in 1992 by Ploem and Olivier.

Findings: Findings were similar to 1992. Experienced nurses reported a number of problems and distressing feelings related to their HIV work (e.g., fear of contracting HIV) and a number of service needs (e.g., ongoing HIV education).

Conclusions: More preparation is needed to provide the education and information that nurses need to provide care for HIV positive individuals.

Implications: Findings provide a basis for future policy changes for concerning nursing education and allocated resources.

This study was funded by Health Canada.

Abstract Session VIII

Practice

*Establishment of a Palliative Care Consultation Service for
Patients with HIV/AIDS in an Urban Teaching Hospital*
Mimi Rivard, MSN, ANP and Peter Selwyn, MD, MPH

*A 3 Month Evaluation of a Nurse Managed HIV Adherence Clinic
at an Urban HIV Clinic*
Colleen B. Thomas, MSN, RN, CS, ANP, ACRN; Hyun Mi Ahn, MSN, RN;
Michael V. Relf, PhD, RN, CS, ACRN, CCRN and Tina Joy, DNSc, RN

*Attributes of a Client-Provider Relationships Impacting
Adherence to Health Care Regimens*
Bradford A. Farrington, RN, MS, APNP, ACRN
and Barbara E. Berger, PhD, RN, ACRN

Establishment of a Palliative Care Consultation Service for Patients with HIV/AIDS in a Urban Teaching Hospital

Mimi Rivard, MSN, ANP

Peter Selwyn, MD, MPH

Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, NY 10467

Background: HIV/AIDS continues to be a source of mortality and morbidity in the Bronx, New York. This project is one of five new HRSA-funded HIV palliative care programs, at a large university-affiliated hospital (1300 beds) in the Bronx, NY.

Purpose: To describe the characteristics, interventions, and outcomes for patients referred to a new HIV palliative care consultation.

Method: Prospective observational study of patients with HIV/AIDS referred for palliative care consultation. Team consists of a nurse practitioner, physician, social worker, psychiatrist, chaplain, and bioethicist. Measures utilized include: demographic information, Karnofsky Performance Scale (KPS), MSAS, Missoula-VITAS (MV) QOL scale, presenting problems, interventions provided, and outcomes.

Results: Forty-one cases were referred and followed by the HIV palliative care consultation service from June through October 2000. Median age was 43 yrs. (range 22-68); 56% patients were Hispanic, 39% African-American, 45% female; 39% were injection drug users, 37% heterosexual contact cases. Median CD4+ count was 32 (range 1-426), 90% had prior AIDS-defining illnesses, median Karnofsky score was 40. Median self-rated quality of life was "fair" (MV-QOL). Patients were most frequently referred for pain control, with 61% reporting pain at enrollment; of these 64% had constant pain, 55% severe pain, and 55% were on no analgesics. Other presenting problems included depression (34%), anxiety (27%), and health care proxy issues (24%). Interventions most often included recommendations for analgesia, emotional support, and psychiatric consultation. Presenting problems were fully or partially resolved in 75% and 88% of cases, respectively. Eleven patients (27%) died, eight from AIDS-related complications, two from end-stage liver disease, one from ALS.

Conclusions: Initial referrals involved medical and psychosocial issues, most of which were resolved by suggested interventions. Mortality data indicates both AIDS-related and non-AIDS causes. Additional data will be presented on a larger cohort, with longer-term follow-up and outcomes.

Implications: Our preliminary experience at a large urban teaching hospital suggests that there is an unmet need for palliative care for patients with HIV/AIDS.

A 3 Month Evaluation of a Nurse Managed HIV Adherence Clinic at an Urban HIV Clinic

Colleen B. Thomas, MSN, RN, CS, ANP, ACRN

Hyun Mi Ahn, MSN, RN

Michael V. Relf, PhD, RN, CS, ACRN, CCRN

Tina Joy, DNSc, RN

Whitman-Walker Clinic, Washington, D.C., USA

Background: Managing complex HIV medication and treatment regimens can be overwhelming. However, medication and treatment plan adherence is crucial to HIV viral load suppression and long-term survival. In March 2000, a nurse managed HIV adherence clinic was established at an urban HIV clinic with the goal of identifying patients at risk for non-adherence, promoting adherence to the medication and therapeutic treatment plan, and improving the quality of life for patients living with HIV.

Purpose: The purpose of this session is to provide an overview of the design of the nurse managed adherence clinic and provide evidence of the impact of nursing interventions to promote adherence and improve quality of life.

Methods/Practice: To determine the effectiveness of the adherence nursing interventions, a retrospective chart audit and follow-up patient interview were conducted. To measure the clinical effectiveness of the interventions, pre- and post-test measures for CD4, viral load, and number of missed appointments were analyzed. Additionally, a follow-up patient interview was conducted in a purposive sample of patients to measure HIV/AIDS targeted quality of life and symptom distress.

Conclusions: At three months post-interventions, 56% of the patients attending the adherence clinic had at least a one log decrease in the viral load. When compared to patients who had been diagnosed with HIV for greater than 1 year, patients who were newly diagnosed with HIV (<1 year) had higher viral load suppression, fewer indications for referral to the adherence clinic by the patients provider, less barriers to learning and more visits to the adherence clinic. Overall, the major barriers to adherence were mental health issues and cognitive/sensory impairments.

Implications for Practice: Preliminary evidence from this urban HIV adherence clinic demonstrates the important benefits of nursing interventions to promote adherence. To be effective, all newly diagnosed HIV patients should be referred to the adherence program for a detailed adherence risk assessment and formulation of an adherence treatment plan. For patients who are diagnosed with HIV for longer periods, intensive, individualized adherence education and follow-up is recommended. Similarly, dually diagnosed patients and patients with cognitive/sensory impairments also require intensive, on going adherence support and monitoring.

Attributes of a Client-Provider Relationships Impacting Adherence to Health Care Regimens

Bradford A. Farrington, RN, MS, NP-C, ANP, ACRN

Barbara E. Berger, PhD, RN, ACRN

University of Illinois at Chicago, College of Nursing, Chicago, IL, USA

Background: Adherence is a critical factor in effective antiretroviral therapy. Adherence is a dynamic process of human behavior and interaction. The client-provider relationship is implicit in this interaction. Few studies are available that specifically demonstrate the effects of relationship attributes on treatment adherence and health outcomes. Areas of inquiry include attributes of the interaction and key attributes of both the client and the provider constituting compatibility in a successful relationship.

Purpose: The purpose of this investigation was to identify and describe the attributes of the client provider relationship that are consistent across theoretical models and that may have important implications for adherence research and for practice.

Methods/Practice: This study compared three conceptual models that describe specific attributes of client-provider relationships: Lowenberg's Interactive Dimensions of Relationship; O'Brien, Petrie, and Raeburn's Doctor-Patient Interaction Variables; and Chewing and Sleath's Client-Centered Model. The characteristics common to all three models were identified and diagrammed. Research articles on adherence were then selected for review. Seven articles were examined individually for references to the client-provider relationship, and these references were then compared to the attributes described in the three selected models.

Conclusion: The comparison of the theoretical models with the reviewed research literature revealed common themes regarding the client-provider relationship and its effects on adherence. Because the client-provider relationship was conceptualized and measured differently in each of the reviewed studies, it was difficult to thoroughly characterize the important aspects of this relationship. This work, however, suggested directions for further inquiry. Foremost among these are the development of a consistent conceptualization of the client-provider relationship and an accurate tool to measure its attributes in order to study the impact of these relationships on adherence.

Implications for Practice: Characterizing the client-provider relationship by identifying its distinct attributes may improve the clinician's ability to develop a mutual understanding with the client regarding treatment goals and interventions, thus improving adherence and client outcomes.

Lessons Learned in Delivering Innovative Models of HIV Care: The SPNS Experience

Barbara Aranda-Naranjo, PhD, RN, FAAN

- A. New Integrative Models of Care
 - 1. History of SPNS initiative for 1996-2001 a joint collaborative with HUD/HOPWA Program
 - 2. From Concept to Implementation

- B. Common Lessons across Projects
 - 1. Implementation
 - 2. Service System
 - 3. Agency
 - 4. Client

- C. Barriers overcome by Projects (two examples)
 - 1. Housing for Multiply Diagnosed Men and Women with AIDS: The Bridge Project, Lutheran Social Services – San Francisco
 - 2. Reaching Border Migrant and Seasonal Farmworkers: La Frontera, University of Texas Health Science Center, San Antonio/South Texas

References

Lessons Learned (2001), Department of Health and Human Services. HIV/AIDS Bureau, Special Projects of National Significance and Department of Housing and Urban Development, HOPWA Programs, I-217, Rockville, Maryland

Aranda-Naranjo, B. & Gaskin, S. (1998). HIV/AIDS Migrant and Seasonal Farmworkers. JANAC, 9(5), 80.

Abstract Session IX
Research

*The Connected Self: A Theory to Reverse Self-Care
Neglect in HIV and Incarcerated Women*
Mary Hobbs Leenerts, PhD, RN, ARNP

*Facilitating Coping with HIV Disease:
Evaluation of a Partner Intervention Model*
Betsy Fife, RN, PhD

How Do Persons with AIDS Image Their Disease?
Elizabeth H. Anderson, APRN, PhD

**The Connected Self:
A Theory to Reverse Self-Care Neglect in
HIV+ Incarcerated Women**
Mary Hobbs Leenerts, RN, PhD, ARNP, Assistant Professor
University of Kansas School of Nursing, Kansas City, Kansas, USA

Background: Bureau of Justice statistics report a higher number of HIV+ female state prison inmates when compared to HIV+ male inmates. Several studies by the Bureau of Justice and others underscore that incarcerated women enter prison with many physical and mental health problems. Research addressing self-care in this population is significant because of the high incidence of self-care neglect combined with increased vulnerability to poor physical and mental health.

The Design: Self-care practices of HIV+ incarcerated women were investigated in this grounded theory study. Specific aims were to: a) Explore perceptions of self-care; b) Identify factors that promote and constrain self-care; c) Develop midrange theory that promotes self-care practices. This qualitative-descriptive study utilized symbolic interactionism as a meaning centered framework for discovering relevant experiences grounded in women's lives.

The Setting: Was a state medium security prison in the southeastern United States.

The Sample: Included 22 HIV+ incarcerated women. All women spoke and understood English; eighteen women were African American and four were Euro American.

Data Collection: Data were collected through audio taped interviews and a demographic form identifying age, education, partner status, number of children, and so forth.

Data Analysis: Was accomplished using constant comparative analysis and three levels of coding (open, selective, and theoretical).

The Findings: Demonstrated a continuing vulnerability to poor health over time accompanied by a disconnection from self and self-care practices. The basic psychosocial process of Disconnecting from Self revealed a process that shaped self-care attitudes and behaviors. Self-care neglect can be reversed by the theory of the "Connected Self". This theory captures four major connections: a) Connection to Self; b) Connection to Relationships; c) Connection to Resources; and d) Connection to Meaning. Clinical applications of the theory will be addressed with emphasis on self-care that promotes health and supports transition into the community.

Facilitating Coping with HIV Disease: Evaluation of a Partner Intervention Model

Betsy Fife, RN, PhD

Indiana University School of Nursing, Indianapolis, IN, USA

Background: The day to day course of HIV/AIDS remains unpredictable, and it continues to be associated with high levels of stress and irrevocable life changes despite the advent of HAART. Finding effective means of assisting persons to adapt and cope with the diverse problems they confront has become an increasing concern, as distress is thought to impact the immune response as well as the ability to adhere to challenging regimens.

Purpose: The purpose of this study was to evaluate a clearly defined replicable intervention designed to strengthen the dyadic relationship of the individual with HIV and the significant other with whom s/he shared a residence.

Methods: The participants included 106 dyads recruited and randomly assigned to either the intervention group or a treatment control group. The sample included 30% women, 23% African-Americans, 41% gay or lesbian, and 49% heterosexual. The intervention was based on psychosocial/educational model that consisted of four, two hour sessions including the following topics: communication skills, stress assessment; effective coping strategies; getting social support and keeping it. Both partners participated in each session. The control intervention included four non-directive, supportive telephone calls to the HIV patient only. Data were collected at baseline prior to beginning any intervention or contact with dyads in either group, immediately following completion of the intervention or the supportive phone calls, and three months and six months out to determine if positive effects were maintained. Data were gathered by self-report questionnaires that included valid and reliable measures of coping strategies used, emotional distress, social support, constructed meaning, personal control, and symptomatology.

Findings: Repeated measures analysis of variance based on the data of the 58 dyads who completed the study indicated a significant interaction effect over time in coping behavior and social support, and a main effect in decreasing emotional distress.

Conclusions: This study demonstrates that an intervention model incorporating a live-in partner shows promise of being both feasible and effective, and it warrants further investigation.

(Funded by NINR: NR014414)

How Do Persons with AIDS Image Their Disease?

Elizabeth H. Anderson, APRN, PhD

University of Connecticut School of Nursing, Storrs, CT, USA

Margaret Spencer, APRN, MS

Trinity Hill Care Center, Hartford, CT, USA

Background: People with AIDS know that despite scientific advances, there is no treatment to cure their disease. In the Common Sense Model of illness, patients are viewed as active problem solvers who transform external (lab results) or internal (symptom) stimuli into images of threat and/or emotional reaction. How patients understand AIDS is key to their coping.

Purpose: Purpose was to examine patients' images of AIDS and the relationship of these images to quality of life and mood.

Method: A descriptive cross-sectional study was conducted with a convenience sample of 26 persons with AIDS in a long-term care facility in the Northeast. Instruments: Quality of Life, Profile of Moods Short Form and Mini-Mental Status Exam have well established validity and reliability and were analyzed with SPSS PC 10.0. Interviews on the experience, image, and meaning of AIDS were tape recorded. Data were analyzed using Colaizzi's method of phenomenology.

Results: Twenty patients were male, six were female. Average age 41 (SD=8.4) with mean CD4 count of 142 (SD=179). Forty-one significant statements were extracted and clustered into two themes. Many patients viewed AIDS as an evil force, devouring life, an automatic death sentence like being in a hole and not able to get out. Others imaged AIDS as a controllable disease that you need to fight as a wild cat that you can keep at bay as long as you are attentive. Persons with negative images of AIDS were older ($r=.48$, $p<.01$) had poorer quality of life ($r=.76$, $p<.01$) and greater mood disturbance ($r=.57$, $p<.01$).

Conclusion: Negative Images of AIDS are associated with poorer quality of life and greater mood disturbance.

Implications: Assessing patients' images of AIDS may be an efficient, cost-effective way for nurses to identify persons at risk for lower quality of life and greater mood disturbance.

Abstract Session X Practice

A Visual Depiction of HIV/AIDS in Cuba

Joseph E. Farmer, MSN, RN, ACRN; Sharyn Janes, PhD, RN, ACRN;
Lic. Dulce Maria Ferro Paumier, BSN, Lic. Maria Elena Ricardo, BSN

*Integral Nurse Attention to HIV Pregnant Women and Their Children:
A Cuban Experience*

Lic. Maria Elena Ricardo, RN

*HIV/AIDS and Later Life:
Creating Caring Partnerships*

Nathan Linsk, PhD, Donna Gallagher, RNCS, ANP;
Kathleen Nokes, PhD, RN and Jane Fowler, BS

A Visual Depiction of HIV/AIDS in Cuba

Joseph E. Farmer, MSN, RN

University of Southern Mississippi, Long Beach, MS, USA

Sharyn Janes, PhD, RN, ACRN

University of Southern Mississippi, Hattiesburg, MS, USA

Lic. Dulce Maria Ferro Paumier, BSN

Santiago de Las Vegas HIV/AIDS Sanitorium, Havana, Cuba

Lic. Maria Elena Ricardo, BSN

Pedro Kouri Institute of Tropical Medicine, Havana, Cuba

The Caribbean region has seen significant increases in the number of HIV/AIDS cases in recent years, which brings one of the fastest growing regions for the ever-expanding HIV/AIDS pandemic right to our doorstep. Until recently, Cuba has been able to control the epidemic within its borders by employing sound public health methods that have often been misunderstood and misrepresented. This presentation provides a description of the Pedro Kouri Institute and the Santiago de Las Vegas HIV/AIDS Sanitorium. The Pedro Kouri Institute of Tropical Medicine is one of the most prestigious research institutions for tropical medicine and infectious diseases in Latin America. Scientists there are developing medications and treatments for HIV/AIDS that may be used throughout Latin America. The Santiago de Las Vegas HIV/AIDS Sanitorium is the largest of the 14 sanitoria in Cuba. The sanitoria are community-based and admission is voluntary.

The reality of HIV/AIDS care in Cuba is that, while very positive public health efforts are being promoted, economic and political issues have eroded public health efforts until the number of new HIV cases has increased significantly in recent years. One of the primary reasons for the marked increase in AIDS cases is the inability to obtain desperately needed U.S. patented medications because of the 40-year old U.S. trade embargo. Some humanitarian organizations have provided some access, but not nearly enough.

Cuba has been doing a good job keeping the epidemic under control but is losing ground. U.S. and Cuban nurses must reach out to each other before Cuba meets the fate of other Caribbean countries affected by HIV/AIDS. Our efforts will not only help to heal Cuban patients and families but also help to heal the long-strained relations between our countries – person to person and more importantly nurse to nurse.

**HIV/AIDS and Later Life:
Creating Caring Partnerships**

Nathan Linsk, Ph.D.

Midwest AIDS Training and Education Center

Donna Gallagher, RNCS, ANP

New England AIDS Education and Training Center

Kathleen Nokes, Ph.D., RN

Hunter Bellevue

Jane P. Fowler, B.S.

National Association on HIV Over Fifty

People in their later years and their caregivers face challenges of living with HIV compounded by biomedical and social issues related to both HIV and aging. This workshop will describe how older adults increasingly are affected by HIV and how this varies in different geographic areas. Specific current practice issues about HIV care for older adults to be addressed include: issues of case finding, assessment issues including co-morbidities, mental health conditions, and assessing sexual and domestic violence risk in older people. The presenters will describe methods to teach older adults to identify and self manage HIV related symptoms. Older adults can present a personal perspective to care providers as well as assist with risk reduction and HIV education. The presenters will explore how the HIV positive patient and their health care provider can form a caring partnership to address treatment issues, medication adherence and access to HIV related and aging network services.

The “Dissident” Arguments and Implications for Advanced Practice

Richard MacIntyre, PhD, RN

Professor and Chairman, Division of Health Sciences
Mercy College, New York

Behavioral Objectives: At the conclusion of this presentation, the learner will be able to:

1. Distinguish two major types of AIDS “dissidents” by major arguments.
2. Identify three reasons to consider postponing antiretroviral treatment for as long as possible.
3. Identify the concerns that President Mbeki and other African leaders have about importing the Western model for HIV treatment to Africa.

Outline

The Radical Dissidents

- I. The HIV virus does not exist (Hodgkinson, 1996)
- II. The HIV virus is harmless in most if not all circumstances (Duesberg, 1996)
- III. T-cell counts and viral loads are meaningless because of
 - A. Variability in the population (some healthy people have low CD4 counts and or high viral loads)
 - B. Variability in particular individuals (counts vary widely in some individuals irrespective of clinical status)
 - C. The Nobel Laureate, Kary Mullis who invented PCR says viral load testing is meaningless.
- IV. Economics has a lot to do with how biomedical truths are constructed
- V. Clean water, food, clothing, shelter, sanitation, intact social relationships and basic public health (including malaria prevention programs) would do more to help prevent deaths in Africa than antiretroviral medications.

The Quieter “Dissidents”

- I. Co-factors play a role in the progression of HIV to AIDS.
- II. Untreated HIV infection does not always lead to AIDS.
- III. Anti-retroviral treatment should be delayed for as long as possible because
 - A. NAIAD reports a 10-year median time from infection to AIDS
 - B. The medications have serious side effects
 - C. We don’t yet know how long people can live on these meds
 - D. Previously un-medicated patients have a better response to the meds
 - E. Keeps the limited number AIDS drugs available for a longer period
- IV. Economics has a lot to do with how biomedical truths are constructed
- V. Clean water, food, clothing, shelter, sanitation, intact social relationships and basic public health (including malaria prevention programs) would do more to help prevent deaths in Africa than antiretroviral medications.

Graduate Posters

Evaluation of Patient Knowledge about HIV Resistance

Mary Shoemaker, RN, BS, MPH Student

University of Rochester, Rochester, New York

Background: Researchers and clinicians recognize that adherence to highly active antiretroviral therapy (HAART) is central to effective treatment of HIV. Interventions to improve HAART adherence are needed. This project is strongly cognition-oriented, evaluating for the first time patients' knowledge about HIV resistance. Recent reports suggest a number of determinants may impact on HAART adherence, including current alcohol or other substance abuse, depression, social support, medication-taking self-efficacy, and relationship with health care provider. Demographic variables and past substance abuse do not appear to predict adherence. The current study not only adds some initial cognition-oriented data to the growing knowledge base about antiretroviral adherence, but it is geared toward an adherence-improving model that incorporates cognitive, as well as psychological and behavioral, components.

Methods: Thirty structured, audiotaped interviews conducted with HIV positive clinic patients on HAART were transcribed verbatim. Since patient knowledge about viral resistance had never been reported before, the author assessed knowledge about resistance through an iterative review process, developing thematic elaborations for each level of accuracy. Among those patients who knew about HIV resistance, two levels of accuracy were identified. A coding system was established in order to develop a more reliable ordinal scale for rating accuracy of knowledge about HIV resistance. The transcriptions will be independently coded for accuracy of knowledge by two qualitative researchers to establish inter-rater reliability of the coding scheme.

Results: Six percent of clinic patients on HAART were unable to articulate any knowledge at all about HIV resistance; 53% had at least minimal knowledge, while 27% were able to give fairly complex descriptions of viral resistance and its relationship with medication adherence.

Conclusions: A small but significant number of patients appear to lack basic knowledge about resistance. In future research, potential relationships between knowledge about HIV resistance and adherence to HAART will be explored, and the development of a cognitive/behavioral approach to improving adherence will be possible.

Readiness and Adherence:

A Phenomenologic Study of HIV+ Persons Who are Successful in Adhering to Treatment

Maithe Enriquez, MSN, RNC, PhD(C)

Nancy Lackey, RN, PhD

University of Missouri-Kansas City School of Nursing and Trinity Lutheran

Hospital, A Member of Health Midwest, Infectious Diseases Program

Kansas City, MO

Background: Successful treatment of HIV infection depends on the ability of an individual to adhere to a regimen of medications that have a variety of unpleasant and sometimes life threatening side effects. In addition, rigorous lifestyle behavior changes are often required in order to achieve success with anti-HIV treatment. Lack of adherence can result in treatment failure and drug resistance rendering the HIV infected individual untreatable.

Purpose: The purpose of this phenomenologic study was to determine what factors make an HIV+ individual ready to adhere and ready to make the major life changes necessary to become adherent and remain successful.

Methods: This was purposive sample of 13 HIV+ men and women diagnosed with HIV disease for greater than one year. Subjects were adults who had previously been unable to adhere to combination anti-HIV medications and make lifestyle behavior changes, but had become adherent to treatment with HIV-1 viral load below detectable levels for greater than 6 months. Subjects for this study could NOT have received any formal adherence interventions.

Procedures: Participants completed a demographic data form and were audiotaped for approximately one hour each. The overall question guiding the interview was “What has your experience been in making lifestyle changes and what was the decision making process like in deciding to make these lifestyle changes?” The research question was prefaced with a discussion with the subject regarding the fact that he/she had been successful at incorporating lifesaving behavior changes in order to be adherent with anti-HIV medication treatment.

Data Analysis: The data analysis is in progress at this time and we anticipate having **Conclusions and Implications** completed and ready to present at the ANAC Conference November 11, 2001.

Information gained from this study will be used to develop nursing interventions that will help other HIV+ persons to be successful in adhering to therapies that are lifesaving in nature.

Gay Identity, Battering and HIV Risk Behaviors in Men Who Have Sex with Men: An Empirical Test of Theoretical Model

Michael V. Relf, PhD, RNCS, ACRN, CCRN

Whitman-Walker Clinic, Inc., Washington, DC, USA

Objective: The purpose of this study was to test a middle-range theory of HIV risk behaviors (HRB) in men who have sex with men (MSM).

Design/Methods: Using a model testing, predictive correlational design with a cross-sectional time dimension, the proposed theoretical model was tested in a national probability sample of 2144 urban MSM. Using confirmatory factor analysis and structural equation modeling, the theoretical relationships and path structures of the proposed theoretical model were tested.

Findings: Gay identity and childhood sexual abuse were identified as significant predictors of HRB in MSM. As hypothesized, depression and battering victimization mediated the relationship between childhood sexual abuse and HRB among these urban MSM. Similarly, depression, substance use, battering, and HIV alienation mediated the relationship between gay identity and HRB. Cue-to-action triggers were not identified to have protective effect on HRB.

Conclusions: For nursing science, this study demonstrated the importance of childhood sexual abuse, gay identity and battering victimization as factors related to HIV risk behaviors among urban MSM. The interrelationships between childhood sexual abuse, battering and HRB yielded three potential mechanisms for increasing HIV risk among MSM. The three mechanisms included forced/coercive sex with an HIV positive partner, the impaired ability to negotiate safer sex via sexual and interpersonal communication due to battering and sexual risk taking among MSM who experienced sexual abuse as a child or adolescent.

Implications for Nursing Practice: Routine screening for childhood sexual abuse and battering victimization needs to be routine nursing practice. Additionally, by understanding the theoretical relationships between gay identity, childhood sexual abuse and HRB, nurses can individualize prevention interventions that place MSM at risk for HIV.

Posters

Correlates of Sleep in HIV Infected Individuals

Donna H. Taliaferro, RN PhD

The University of Texas Health Science Center of San Antonio

Background: Both the quality and the quantity of sleep are influenced by such parameters as age, circadian rhythms, medications and pathological alterations. Sleep disturbances in HIV infected persons are the fourth cause for seeking medical help.

Purpose: The purpose of the study was to compare the patient's subjective experience of sleep with the objective measure of a computerized measurement device.

Method: Patient's were given the Sleep Disturbance Scale (Kathy Lee, UCSF) and wore the Actiwatch (Mini-Mitter, Sunriver, OR) for 48 consecutive hours.

Results: $n=45$ male and female HIV infected individuals were studied from a SouthWest AIDS inpatient facility over a two year period. The measure of sleep efficiency negatively correlated with the sleep disturbance scale ($r=-.85$). Patients reported that they slept with the light on due to the fear of falling or fear of dying. The impact of light on sleep has been documented as suppressing melatonin levels by 50-80% with only a 10 watt bulb.

Conclusion: Subjects with HIV not only indicate that they have sleep problems but the sleep efficiency scores indicate that as well. It could be due to the infection they are experiencing or to the continuous light that prevents the melatonin from inducing sleep.

Implications: Sleep has profound effects on both the quality of life and functional status. When someone is tired and fatigued, they cannot perform the activities of daily living as needed. Environmental and individual assessments are needed to assist the person with greater ability to induce sleep. Intervention studies are needed to determine if there is sufficient melatonin in the body to maintain a normal sleep pattern.

Funding: NIH/NINR #1R15NR04873-01

Survivor: Herbie's Challenges Through Heroin to HIV to Herbs

Catherine A. O'Connor, MSN, RN, ACRN

East Boston Neighborhood Health Center

Carol A. Patsdaughter, PhD, RN, ACRN

Northeastern University

This presentation tells the story of Herbie, a 69 year-old African American male. Herbie was born in East Harlem, brought up by a single mother, and had two brothers and three sisters. By his early teenage years, he had dropped out of school and developed a heroin habit. Over 40 years of drug abuse (“menticide”), thefts, and a series of incarcerations followed. In 1985 Herbie was diagnosed as being HIV positive. Upon learning his diagnosis, Herbie’s response was a several year alcohol binge accompanied by a nine-month course of AZT (“Immunity Challenges”). Today, Herbie is drug and alcohol free (13 years), nicotine free (4 years), and caffeine free. He is primarily vegetarian (although he recently began to eat fish for protein to “keep the water out” of his legs), drinks spring water, and consumes major quantities of garlic and hot sauce. His major hobby is reading, primarily literary works of African American authors that address his own life circumstances (Claude Brown’s Man Child in the Promised Land; Ralph Ellison’s Invisible Man; Richard Wright’s Uncle Tom’s Children); he also likes listening to African American jazz as well as tending his plants (“Reward Challenges”). Whereas Herbie was once arrested in the 1940s in front of the Guggenheim Museum in New York City for “possession of a screwdriver”, he recently attended the van Gogh exhibit at the Museum of Fine Arts (“I was face-to-face with van Gogh!”). Herbie’s HIV is now managed through a conservative medication regimen (Epivir, Zerit), but his recent CD4 (t cell) count was 675 and his HIV RNA (viral load) was undetectable. Against common sense odds and biomedical statistical probabilities, Herbie is a survivor (“Outwit, Outplay, Outlast”). In contrast to reasons for long-term nonprogression in HIV infection that have been documented in the literature, Herbie offers his own survival attributions. He also reflects on how he might have done things differently during the course of his life. Herbie identifies both providers with whom he has worked well (“Alliances”) and providers that he would “vote off” his tribe (“Tribal Council”). Now in his second season, Herbie is faced with some new and continuing challenges related to addiction, HIV, and aging. Implications for care of long-term survivors with HIV are identified from this case study including the need to tailor care to the unique histories, life circumstances, needs, and preferences of individuals and the necessity for adaptive and creative self-care and primary care management strategies for this growing population.

The Use of Recombinant Human Growth Hormone for Dorsocervical Fat Pad Accumulation in a Patient on Highly Active Antiretroviral Therapy

Gary Richmond, M.D.

Vernon Appleby, R.N.

Tara Strawbridge, R.N., B.S.N., A.C.R.N.

Background: HIV-associated adipose redistribution syndrome (HARS) is a subset of HIV-related lipodystrophy involving abnormal accumulation fat such as visceral adipose tissue, dorsocervical fat (buffalo hump), breast or chest fat, and/or lipomas (solitary or multiple). HARS may occur with or without abnormal fat depletion (peripheral lipoatrophy) or metabolic abnormalities such as dyslipidemia or impaired glucose tolerance. Previous studies have shown that mammalian cell-derived recombinant human growth hormone (r-hGH[m]), 6 mg daily (qd) reduces buffalo hump, but side effects (e.g., joint pain, tissue turgor, myalgia) were observed at this dose.

Objective: To determine whether r-hGH[m] given at a lower dosage, 3 mg qd, is effective reducing buffalo hump.

Subjective: Case report of a 40-year-old male patient diagnosed with HIV infection 2/86. Prior antiretroviral history included exposure to zidovudine, zalcitabine, stavudine, lamivudine, and indinavir, but not non-nucleoside reverse transcriptase inhibitors. The patient developed a buffalo hump in 1992. In 2/94 the patient was placed on stavudine with indinavir and noticed a marked increase in the buffalo hump. The patient underwent liposuction to reduce dorsocervical fate in 10/97. In 6/00, he presented with re-accumulation of

dorsocervical fat. Shoulder to shoulder girth measured 50.8 cm. At that time, antiretrovirals included abacavir, amprenavir, efavirez, ritonavir, and T-20. HIV 1-RNA by PCR was 298 copies/ml and CD4 cell count was 416/16%. Weight was 93.2 kg and bioelectrical impedance analysis (BIA) revealed a body cell mass (BCM) 38.7 kg and fat 16 kg with a phase angle of 7.2 degrees. The patient self-administered r-hGH[m] 3 mg qd subcutaneously for 12 weeks.

Results: At 12 weeks of r-hGH[m] treatment the patient's shoulder to shoulder girth measurement was 49.5 cm. Post treatment weight increased to 96 kg with BCM increased to 42 kg and fat 16 kg with a phase angle increased to 8.0 degrees. There were no consistent changes in glucose, blood lipid levels, CD4 counts and viral loads. Adverse events at the 3 mg sc qd were very mild joint pain not requiring treatment.

Conclusion: r-hGH[m] at 3 mg sc qd was effective reducing dorsocervical fat pad accumulation. The reduction of buffalo hump at 3 mg dose occurred with fewer adverse events than previously reported with a 6 mg dose. The durability of r-hGH[m] at this dose in maintaining the effects is unknown. Further controlled studies are needed to determine optimal dosing and durability.

Development of the HIV Tolerability of Medical Assessment (TOMA) Instrument

Carolyn Sipes, DNSc, RN, CNS-C, **Abbott Laboratories**

Sande Gracia Jones, PhD, ARNP, *Florida International University, Miami*

Elaine Kauschinger, MS, ARNP

Charles Buscemi, MS, ARNP, *University of Miami*

Christina Joy, DNSc, *Whitman-Walker Clinic, Washington, DC*

Bethsheba Johnson, NP, *Luck Care Clinic, Chicago*

Belinda Brown, ND, NP, *Howard Brown Medical Center, Chicago*

Barbara Berger, PhD, *University of Illinois, Chicago*

Michael Grodesky, NP, *University of Colorado*

Bill Burman, MD, *Denver Health Medical Center, Denver*

Background: The aim of this pilot study is to develop a self-assessment questionnaire that will explore clients' perceptions of prescribed HIV antiretroviral therapy (ART), to gain a better understanding of factors that make taking a medication more or less tolerable or desirable. Client's tolerability of medication regimens is an important issue for HIV ART medication adherence. Lack of adherence to the prescribed HIV medication regimen may ultimately result in nonadherence, development of drug resistance, and subsequent treatment failure.

Purpose: The purpose of this pilot study is twofold, first, to develop a self-assessment screening tool designed to assist in predicting a clinical course in terms of the clients' ability to tolerate the ARV medication regimen they have started or have been switched to, because of inability to adhere to a prescribed HIV medication regimen. Based on data obtained from the TOMA instrument, the second aim of the study is to identify clients' perceptions of side effects and adverse events with current ARV therapy, and how these events impact their activities of daily living, since these factors may be associated with non-adherence.

Methods: This is a prospective multi-site pilot study. HIV content experts who are currently serving as the study site co-investigators established content validity for the pilot instrument. A total sample of 72 (N=72) participants who are currently prescribed HIV ART will be recruited from six clinical sites.

Data Analysis: Data analysis will include item analysis, repeated measures and correlation analyses. Factors derived will then be stratified by demographics, category/class/brand of ARV medication, length of time since HIV diagnosis, baseline viral load, and baseline CD4 count.

Results: The study is in progress, with Phase I results due to be completed by October 2001.

Conclusions: The instrument developed in this study will provide a tool that will assist in predicting tolerability and adherence to prescribed HIV medications, by assessing clients' perceptions of tolerability of prescribed ARV therapy.

Implications: This is a pilot study to develop an instrument that will assist in predicting a clinical course in terms of clients' perceptions of how easy or difficult it is to take and tolerate their ARV medications. Knowledge of what may or may not be tolerated with regard to adverse events, side effects, and impact on activities of daily living, may ultimately predict the risk of nonadherence to certain ARV medications.

The Antiretroviral Medication Complexity Index

Marcia McDonnell, DSN, RN, FNP

Colleen DiIorio, Ph.D., RN

School of Nursing and School of Public Health, Emory University, Atlanta, GA, USA

The Antiretroviral Medication Complexity Index (AMCI) was developed to measure the complexity of individuals' antiretroviral (ARV) regimens. The index measures 5 aspects of the medication regimen: dose schedule, ingestion requirements, administration requirements, pill burden, and side effects/distress. Points are allocated for each medication and a medication-specific score and composite regimen complexity score are calculated.

Design: The AMCI is currently being evaluated for reliability and validity using classic measurement theory techniques.

Method: Content validity will be evaluated using a panel of 5 expert providers and nurses who prescribe and provide education regarding ARV medications. Construct validity will be assessed by comparing complexity scores from the AMCI ratings of complexity provided by HIV-specialist nurses and patients taking antiretroviral medications. Inter-rater reliability will be assessed on a sample of 10 HIV+ patients currently taking various ARV combinations.

Findings: This poster will present findings from the initial stage of instrument testing. Revisions to the AMCI will be made based on the results of the reliability and validity testing.

Implications: The AMCI has both clinical and research utility. Patients may have increased difficulty adhering to highly complex regimens. This instrument will enable nurses and providers to quantify the level of complexity for the ARV regimen and identify which components are contributing to the difficulty. Alterations in the regimen may be made based on the AMCI scores. The AMCI will also allow for comparisons of complexity among regimens.

Correlates of Complementary Therapy Use in

Persons with HIV Disease

Kenn M. Kirksey, PhD, APRN, BC, CEN

Mary Jane Hamilton, PhD, RNC

Angela L. Hudson, PhD, RN

Mary Holt-Ashley, PhD, RN, CNAA

William J. Holzemer, PhD, RN, FAAN

Persons living with HIV/AIDS are challenged to manage disease-and treatment-related symptoms with provider-directed or client-initiated self-care measures.

Objective: The goal of this study was to identify complementary medicines (CAM) used as self-care strategies. The use of CAM in HIV care has recently increased, as people become more knowledgeable about treatment options from healthcare providers, media sources, and through social support networks.

Population, Setting, and Year Study Conducted: Data were collected at an outpatient HIV/AIDS clinic in southern Texas with a population of approximately 5,000 clients, in summer 2000.

Sample: This paper reports frequency and mean effectiveness of CAM use in a community-based sample of 339 HIV-infected people between the ages of 18 and 66, with a mean age of 40 years (+/-8.4). The majority of the participants were African-Americans (72.6%), 8.8% were Hispanic, 15.3 were white and 3.3% identified as others. There were 111 females and 228 males who participated in the study; approximately 60% had completed high school and 12% had college degrees.

Design and Variables Studied: Using a cross-sectional, descriptive design, self-reported data were collected on HIV-related symptoms, health-related quality of life, and CAM therapy use.

Methods: Participants completed an assessment packet that included sociodemographic data, Survey of Complementary Therapies, Sign & Symptom Checklist for Persons with HIV Disease, Living with HIV Scale, CES-D, and the MOS-Short Form-36.

Findings: Using variables that were either classically demographic (e.g., gender, age) or those that showed significant zero order correlation, a hierarchical regression model was applied. The overall model at the last step explained 11.2% of the variance ($F_{7,331} = 5.952, p = 0.000$). African-Americans used the most CAM therapies, while Hispanics and subjects who perceived themselves as sicker used fewer CAM therapies. The top three CAM therapies identified by rank order of "yes" responses, percent use, and mean effectiveness were: prayer (n=290, 85.5%), spiritual activities (n=162, 47.8%) and meditation (n=143, 42.2%).

Conclusions and Implications for Nursing Practice: There is evidence in the literature about widespread use of these modalities in HIV-infected persons, but evidence-based studies to explore reasons for use and efficacy are still needed.

Language – A Barrier to Successful Outcomes of HAART

Keith P. Huber, RN, ACRN

Betty Benivegna, RN, ACRN, CPN

Paola Jasso, PharmD

Elizabeth Barton

Kathleen K. Graham, PharmD

*North Broward Hospital District & Nova Southeastern University
Ft. Lauderdale, FL, USA*

Background: Florida remains one of the top ten states for HIV/AIDS infection rate. South Florida is also known for its multicultural/multilingual population. The North Broward Hospital District in South Florida serves a significant number of Spanish and Creole-speaking HIV infected clients

Purpose: Perform a pilot study of our non-English speaking patients to determine if language barriers have an affect on clinical outcome and to design a solution to overcome these barriers.

Method: We conducted a retrospective chart review to evaluate the clinical outcome of non-English speaking patients on HAART. We included patients that were either naïve or starting a new HAART regimen between Sept., 2000 and Feb., 2001: collected viral loads, CD4, HAART regimen, and refill records. We evaluated clinical outcome after 3 to 4 months of therapy.

Results: We reviewed 13 charts and 11 were evaluable for outcome analysis: 6 Creole-speaking and 5 Spanish-speaking. Of the Spanish-speaking patients 4/5 (80%) reached undetectable v.l. (<400 copies/ml RT-PCR) vs. 0/6 (0%) undetectable in the Creole-speaking group. ($p < 0.05$). All of the undetectable Spanish-

speaking patients had an interpreter available during clinic visits. The group with the detectable viral loads had minimal intervention by an interpreter. We identified the following barriers to a successful clinical outcome: English-only ADAP and chain pharmacy refill hot-lines, limited availability of interpreters, and limited Creole literature and literacy.

Conclusions: Our pilot study revealed that language is a significant barrier to successful outcomes in our Creole-speaking population and less of a barrier to the Spanish population.

Implications and Plan: This pilot study significantly demonstrates that the needs of our Creole-speaking patients are not being met to ensure successful clinical outcome to HAART. Our plan is to improve availability of interpreters, meet with pharmacies to develop multi-lingual pharmacy hotlines and communicate to pharmaceutical companies the need for Creole HIV literature.

The Problem of Antiretroviral Adherence: A Model for Intervention

Nancy Radcliffe Reynolds, PhD, RN, CNP

The Ohio State University, Columbus, OH 43210

Background: The challenges associated with adhering to combination antiretroviral (ARV) therapies are substantial. ARV adherence has been found to be influenced by a variety of factors including cognitive functioning as it affects the ability to remember and understand instructions, skills to undertake the recommended behavior, psychosocial stress and depression, complexity of the treatment regimen, side effects, and characteristics of the patient's environment or situational context. Educational approaches used by clinicians and researchers to improve adherence have often been atheoretical and based on the assumption that the patient simply lacks appropriate knowledge. Knowledge is a necessary component of adherence, yet intervention strategies that merely offer information are not sufficient in promoting sustained adherence behavior.

Purpose: To develop a multicomponent, theory based intervention for promoting antiretroviral adherence.

Methods: An intervention drawn from self-regulation theory (Leventhal et al.) and empirical data was developed. Self-regulation theory emphasized the importance of patients' perceptions about their illness and treatment and provides a useful framework for broadening a patient-centered understanding of the dynamic factors involved in ARV medication adherence behavior. The proposed model is currently being tested in a study funded by the NIH, NINR (R01 NR05108-01A1). The model and examples of the protocol will be presented.

Conclusions/Implications: It has become increasingly clear that ARV medication adherence is complex. Strategies for maximizing adherence and achieving the full potential of the ARV therapies require multidimensional initiatives that address complex behavioral and biomedical issues.

Structured Treatment Interruption - An Information Sheet for Nurses and a Teaching Tool for Patients

Janet Forcht, RN, MPH

Karen Cavanagh, RN, BSN, ACRN

Richard Hutt, RN

Maura Laverty, RN

NYU/Bellevue AIDS Clinical Trials Unit, New York, NY

Background: HIV researchers are continually seeking new ways to best treat HIV infection. The standard of care for HIV infection is to treat with a combination of potent antiretrovirals. Patients, providers and researchers would like to reduce the side effects, body changes and pill fatigue associated with the long-term use of these drugs. At the same time preserving immune integrity and maintaining viral suppression. A cutting-edge method of treatment currently being evaluated is Structured Treatment Interruption or STL. Potential patients would temporarily stop their HIV Medications and be monitored within a structured setting. In the past providers have stressed the importance of strict adherence to drug regimens. Therefore clearly reeducation of patients and providers is necessary.

Purpose: To provide information sheet for nurses regarding basic concepts of structured treatment interruption. Additionally a teaching tool, in a question answer format will address issues a patient will have regarding this strategy.

Methods: Conduct a series of forums for patients currently enrolled in ACTG studies
To introduce the concept of STI's and solicit their concerns and questions. Review of currently available literature on STI's and sharing of our experience of conducting an STI protocol.

Conclusion: Patients and nurses need to be aware of the possible consequences and potential benefits of an STI. In addition, adequate understanding of an STI is necessary in order to ensure patient safety. This can best be done through nurse and patient education.

Competency Based Nursing Certificate in HIV/AIDS Counseling and Patient Care Management for African Nurses

Karen Ivantic-Doucette, MSN, FNP, ACRN

Marquette University College of Nursing

Sr. Genovefa Maashao, PHN

St. Joseph Shelter of Hope, Mombassa, Kenya

Madeline Wake, PhD, FAAN

Marquette University College of Nursing

Background: In East Africa, Nurses are often an underutilized resource relying on limited education and provisions to deliver an array of health care to persons with HIV/AIDS. As access to HIV medication becomes increasingly available in Sub-Saharan Africa, nurses can be effectively trained in HAART, as well as nonpharmacologic therapies to improve the quality and quantity of life for communities most affected by AIDS. African nurses tend to live in the communities in which they work. They are respected by community members for their knowledge and care delivery. Yet, nurses are people first with attitudes and beliefs shaped by the societies in which they are a part. As attitudes and beliefs guide behavior, misconceptions and negative attitudes create artificial barriers for a nurse's full participation in care delivery. Those that are involved are overwhelmed by burgeoning caseloads and limited resources and education.

Purpose: MUCN has developed and implemented a culturally relevant curriculum for African Nurses with attention to cognitive and affective learning components that reduce the barriers to effective learning and practice.

Methods/Practice: A certificate is issued at the completion of a 6-12 month curriculum. Content areas include: concepts in primary health care applied to HIV prevention and AIDS care, counseling techniques and program implementation strategies. Inherent throughout the program is personal mentoring and care for the caregiver strategies to reduce burnout prevalent in HIV nursing.

Conclusion: Successful implementation has been achieved. The curriculum empowers nurses by combining spiritual renewal and self care support with education and competency building.

Implications for Practice: The curriculum can be templated to training programs in other resource poor countries to extend access to competent HIV care.

HIV Resistance Testing (RT) and Viral Fitness – A Case Study

T. Young, NP (1,2)
J. Gisvold, NP (1)
S. Follansbee, MD (1)
T. Wrin (2)
N. Hellmann, MD (2)

(1) Kaiser Permanente Medical Clinic, San Francisco, Ca

(2) ViroLogic, Inc., S. San Francisco, CA

Topic/Problem: Response to highly active antiretroviral therapy (HAART) results in decreased viral replication and can lead to improved immune responses. Failure on antiretroviral (ARV) therapy challenges providers to construct new regimens that maintain viral suppression and containment. Whether treatment failure is due to adherence problems or incomplete viral suppression, there is ongoing discussion on a true definition of “virologic failure.” Virologic failure often leads to a decline in CD4 cells, increasing the risk of OIs. While the use of HIV RT (genotype [GT] and phenotype [PT]) after treatment failure has contributed to the selection of more effective subsequent therapies, the question remains on when to “switch” therapy. While there are many factors that contribute to this equation, “viral fitness” has been recognized as an important factor when making the decision to switch therapy and can be measured using “viral replication capacity [fitness] assays.”

Methods: A 35 yo GWM from Europe, presented with outbreak of VZV, previous history of same but no other OI. Tested HIV+ 1/96, treatment started 6/96. Current regimen included; APV/RTV+d4T+3TC+EFV for the past 16 months with reported excellent compliance. Pt. had a CD4 nadir of 150 cells/mm³. At presentation, the VL was 1685 c/ml and CD4 was 510 cells/mm³; the VL had been 2413 with a CD4 cell count of 550 cells/mm³ three months earlier. GT/PT tests were ordered to assess for resistance to current ARV regimen and a test was performed to evaluate virus replication capacity.

Results/Conclusions: Both GT/PT results suggested broad cross-resistance to NRTIs and PIs, but the viral replication capacity results suggested the virus was on 1/50 as “fit” as the drug sensitive reference virus. The maintenance of low VLs despite the presence of broad drug cross-resistance suggest that 1) the drugs continue to maintain a modest antiviral effect, 2) the “unfit” virus is incapable of high-level replication, or 3) both factors are maintaining the low VL. Despite the lack of significant change in VL/CD4 measures for this pt., he still presented with VZV outbreak. Loss of viral fitness due to selective drug pressure may explain the lack of immune depletion despite the persistence of detectable virus replication. The impact of low-level viral replication on immune response is not well defined and the development of replication assays may help to differentiate pts. more likely to experience immune depletion (“fit virus”) from those that are more likely to maintain CD4 counts despite loss of viral suppression during ARV treatment. These questions will be addressed in future studies. The pt. remains on his current therapy and will be monitored.

The Second Wave of HIV Nursing: Caring for Self – Body, Mind & Spirit

Onnie Lang, ACRN, MA Counseling/Health Psychology

Esther L. Johnson, RN, C, BSN, PHN, CHT

Marianne Gallagher, RN

South Bay Area ANAC, San Jose, CA, USA

Background: Fewer nurses are entering AIDS care and ANAC membership is declining. Seasoned nurses see a “second wave” coming and ask, “How will we continue to do what we do?”. Our chapter saw a need to provide nurses a two-day retreat and renewal program.

Purpose: To give nurses a chance to retreat in a peaceful environment, share experiences, support each other and be nurtured.

Methods/Practices: Participants engaged in a variety of experiential modalities including: Daily opening/closing ceremonies, support groups, exercise, expressive arts, mind-body therapies, bodywork and energy work. Professionals, knowledgeable in HIV disease and certified in the various modalities, were engaged to facilitate and practice using group and individual formats.

Conclusions: The event was full within three weeks of being announced and a waiting list initiated. While participation was optional, ninety-five percent of all participants were active in every event, arriving before the appointed time or on time. Group cohesion formed early and remained high throughout the program. Participants were open, shared deep feelings and frank experiences of personal and professional natures and directly related to caring for clients with HIV. Discussions focused on current patient population changes, treatment protocol effectiveness, dealing with change and treatment failure, professional and personal psychosocial factors and understanding personal needs and strengths. Group members received mutual support and encouragement. Post retreat evaluations had a ninety-five percent return rate. Ninety percent rated the program as excellent, 10% as very good. Based on participants shared experiences, this type of event is routinely needed by those who care for HIV individuals. In the words of one participant, "This program showed you listened to the needs of nurses in AIDS care and you developed a program to meet those needs."

Implications for Practice: As HIV disease evolves, caring for clients is more complex than ever before. Nursing is challenged with fewer nurses, higher acuity, increased responsibilities and narrower parameters for practice. For nurses to care competently for patients, they must first learn to care for the self. It is critical to become aware of personal limitations and needs so that time away from work can be made, when necessary, to renew and recharge the body, mind and spirit. Only when caregivers are healthy and whole, can clients receive what they need for healing themselves.

Interventions to Improve Compliance with Tuberculin Skin Testing

Joan Vileno, RN, ACRN

MaryRose DeFino, MS, RN, C

Judith Schrager, MSN, RN

Montefiore Medical Center, Bronx, NY, USA

Background: The AIDS Center Clinic, at Montefiore Medical Center provides primary care to 1700 HIV+/AIDS patients in the Bronx, New York. The State Department of Health mandates that annual PPD's be placed and read on all unknown and known PPD negative patients. Quality improvement surveys for the Clinic have shown problems with compliance in annual placement and return reading of PPD's.

Purpose: A goal of the Clinic was to increase the rate of annual placement of PPDs and improve the return rate for PPD reading during the year 2000. Efforts of the providers and nurses were targeted for improvement.

Methods/Practice: 1) Provider reminder sheets were placed in patients charts identified as needing a PPD. 2) Encounter forms were revised to include nursing intake questions to assess PPD status. 3) A nursing log was maintained on all patients who had PPD's placed. Clinic policy requires reminder phone calls to patients by nursing. This was reinforced by mandating documentation of phone calls at 48 hours and whether or not the patient returned for PPD reading at 72 hours. Supplemental grant funding allowed the nurses to offer a \$5.00 phone card incentive to patients returning for a PPD reading. All nursing/provider meetings were used to share updates on the PPD project.

Conclusions: Representative chart review showed a 35% increase in the rate of PPD placement and 25% increase in the rate of returns for PPD reading compared with previous year's data. Anecdotal feedback from nurses indicated that increased discussion and review of clinic goals were instrumental in ensuring that regulatory requirements for patient care were met. A comparison between the PPD project interventions indicated that reminder phone calls were more effective in increasing return rates than phone card incentives. Additional review indicated that patients not generally compliant with clinic visits were not greatly affected by either reminder phone calls or incentives.

Implications: In order to facilitate compliance and sustain the success of programs, it is imperative to involve staff at all levels and provide a forum for continuous dissemination of information.

Development and Implementation of Patient Data Flow Sheets

Cindy Brown, RN,C

All Children's Hospital, St. Petersburg, FL, USA

Background: Medical management of Pediatric/Adolescent HIV has become increasingly complex, requiring a multi disciplinary approach to care. Close clinical monitoring is needed to prevent opportunistic infections, initiate appropriate antiretroviral therapy, and ensure optimal health care to the patient. Monitoring should include evaluation of efficacy and side effects of therapy, early detection and treatment of HIV-associated complications, and maintenance of current immunizations. Tracking clinical data in chronically ill patients is a difficult task without an effective monitoring system.

Purpose: A Patient Data Flowsheet (PDF) was developed to assist in planning care and monitoring disease progression by consolidating clinical information into an organized, one page summary for each patient.

Method/Practice: Patient Data Flowsheets were created for 74 HIV infected patients. Information found on the flowsheet includes patient demographic information, social history, nutritional status, current medications, antiretroviral history, clinical trial participation, staging/annual work-up, resistance testing, serial CD4 and viral load levels, most recent CBC and chemistry results, significant medical history, most recent physical exam, plan for upcoming visit, and immunization needs. The PDF's are updated before each visit by the Nurse Coordinator for review at the weekly multi disciplinary team meeting.

Conclusion: One year after the patient data Flowsheets were instituted, there was an improvement in consistency of obtaining and monitoring routine HIV labs as well as serologies, and other recommended tests. As a result of implementing the patient flowsheets, 92% of the patients in our program received a baseline Hepatitis profile, compared to 41% prior to implementation. Seventy-nine percent of our patients have had a baseline EKG/ECHO, compared to 42% previously. In addition, 90% of our patients have had Pneumococcal antibody assessment, 85% (vs. 17%) have had Toxoplasmosis IgG titers done, and 79% have had their annual chest x-ray.

Implications: The Patient Data Flowsheets have proven to be a useful and effective tool for monitoring patient's disease progression and response to treatment, as well as in planning care. The flowsheets have increased the efficacy of patient care in terms of all team members being able to easily see, at a glance, what clinical tests have been done and when, as well as what else needs to be evaluated. This can assist with quality assurance monitoring and quality improvement in the clinic setting. The PDF's can also be applied to patients with other complicated, chronic disease that require long-term clinical monitoring.

