HAART to HEART
The Dimock CHC Adherence Project

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Adherence at a CHC

- Data from UCSF and other sites reported up to 50% failure rates of PI-based triple therapy
- To determine our success rates, a retrospective chart review was performed in 1997-8
- Charts from all pts prescribed PI's were reviewed using a standardized data extraction tool
- We found at DCHC, 58% of pts on PI did not achieve durable suppression
- Toxicity and side effects were significantly associated with failure (63% vs 30%) and poor adherence (61% vs 41%). 30% of HAART failures were unable to tolerate Rx for 12 weeks

Changes in the clinic

- Interventions to improve the durability of PI and HAART response were strengthened to include aggressive side effect and toxicity management
- Efforts included the development of a more aggressive and comprehensive adherence program to improve treatment success (education, adherence, optimal regimen design etc.)

HAART to HEART concept

- For highly ACTIVE antiretroviral therapy (HAART) to be EFFECTIVE, you must be able to access, accept, take, tolerate and adhere
- HAART to HEART, initiated to improve adherence and treatment success by changing highly active antiretroviral therapy into highly effective antiretroviral therapy

Components of adherence support

- Access to quality care and appropriate medication
- Tailoring regimen
- Simplification of regimen
- Side effect and toxicity management
- Education-provider, patient and support staff
- Peer support
- Psychosocial services and support
- Ongoing monitoring, feedback and support

Adherence support team

- HIV specialist (team leader)
- PCP (if not the team leader)
- Nurse case manager/educator
- Peer educator/advocate
- Mental health counselor
- Nutritionist
- Psychosocial case manager(s)
- Psychiatrist
- Other (employment specialist, referral coordinator, interpreter)

Protocol for HAART Initiation

- All patients meet with their PCP for initial HAART discussion. Decision and initiation takes 2-3 visits
- After PCP visit, the patient meets with a nurse case manager/educator who reinforces education and provide additional information
- All patients are offered a peer educator. If they accept the peer support, peers contact regularly
- Psychosocial case manager is involved in >70% of cases
- Education and support includes use of a manual, regimen and adherence review, general HIV education, aggressive referrals for mental health, substance abuse, nutrition, psychosocial needs

Patient education and aids

- PCP
- nurse case educator
- peer
- manual (lower literacy and bilingual)
- ongoing education
- timers and pillboxes
- regimen tables with pictures as well as names

HAART to HEART Project

- Project adapts to changing needs of an individual and population over time:
  - Phoenix Program
  - Exercise program
  - Nutritionist
- Emphasis on helping patients who do not always self-advocate around HIV treatment
  - Women
  - Active substance abuse
  - Others

The SPNS Project

- In 1999 we received funding from HRSA and the National Projects of Special Significance to evaluate the impact of our adherence model and study the impact of additional home-based visits by an adherence nurse educator during initial 6 weeks of entering project
- Patients were eligible if they were initiating or changing HAART, or if they were suspected of adherence problem and missed at least 1 dose in the last 3 days by patient recall
- 2 CHC sites

Phase 1 data: adherence report and viral suppression

- **3 day recall:** 35% reported missing ≥ 1 dose
- **Average week:** 44% reported missing ≥ 1 dose in an average week
- **Last time missed:** 42% reported their last missed dose was within past week
- Independently, none were correlated with viral suppression
- However a summary adherence measure (nonadherence=miss ≥ 2-3/wk OR every day on 3 day recall), 26% reported nonadherence which was significantly correlated with lack of viral suppression (p=.004)

Comorbidities, adherence and suppression

- History of cocaine and history of heroin were not significantly associated with self-report of nonadherence, although it was more common in users of either drug
- However history cocaine and history of heroin use was associated with viral suppression

	VL<400	**VL>400**	**p**
cocaine:yes	10 (45%)	12	.02
no	15 (83%)	3	
heroin: yes	7(36%)	12	.01
no	19 (86%)	3	

- Sample size was insufficient to determine role of active vs inactive use at this stage

Other correlates of adherence and viral suppression

- At this stage, no correlation between gender, race, HIV risk HIV-related QOL, depression, education satisfaction with care or self-advocacy was seen.
- HIV-related knowledge was associated with higher adherence (71% no missed doses compared with 37% with lower knowledge, although overall education was not correlated.
- Patients reporting trouble taking medications on time were also less likely to have viral suppression.

Role of Peer Adherence Counselor

- 2 peers hired and trained by the clinic to provide education and adherence support
- In the first7 months, 46% of enrolled clients accepted a PAC (67% women, 67% minority)
- 2 PACS initiated 168 encounters (range 1-25/client) with 83% resulting in contact by phone or face-to-face
- Direct services included education and adherence, but also included referrals for mental health or substance abuse treatment, housing, utilities and advocacy for care and treatment
- Women had high rates of chaos, with intervention provided in mean of 2.8 areas in addition to adherence and education
- Play a unique and critical role in the clinic

Lessons Learned in a CHC

- Adherence challenges differ between individuals and change over time (0-3 months, 3-12 months >12 months)
- Focusing on the positive (what motivates) is as important as addressing the barriers
- Formal protocols are necessary for treatment and adherence
- Peers can play a critical role in education and support, but need training and education
- Adherence and effective treatment are ever changing challenges
- Adherence promotion must be multifaceted and multidisciplinary and adapt to changing needs and realities
- Simpler and more tolerable regimens which preserve efficacy are still needed.