Telemedicine: HIV and Infectious Diseases

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HIV and Me

• First patient in 1981
• Director of first HIV Clinic in 1984
• Director of 6 others since; on 3 continents
• Absolutely necessary to physically encounter and examine the patient
Entry CD4+ Cell Counts in All Patients

The majority of CD4+ cell counts are very low
Opportunistic Infections

Number of patients

- Oral thrush
- Pulmonary TB
- Wasting syndrome
- Extra-Pulmonary TB
- Herpes Zoster
- Hepatitis
- Bacterial Pneumonia
- Seborrheic Dermatitis
- Folliculitis

n=200 Patients

Opportunistic Infections

Number of patients

- Leukoplakia
- Esophageal Thrush
- PCP
- Vaginal Thrush
- Cryptococcus Meningitis
- Abdominal TB
- Pleural TB
- Lymphoma
- Dementia
- Penicilliosis

n=200
We need an effective strategy to deal with young, unemployed male IVDUs. One goal would be to foster strong support groups for medication adherence and attempt to return them to productive work.

We also must have realistic expectations. The patients are so sick that 2% have died with 5 weeks. ARV will not help all of these patients.

Natural History of HIV-1 Infection
HIV Treatment in 2019

- Everyone with HIV is immediately placed on anti-retroviral drugs
- With the new drugs every patient should be undetectable for HIV within 1 month; meaning disease controlled
- This preserves (or restores) immune cells
- Prevents transmission of HIV
Anti-retroviral Therapy

• Prevents and reverses HIV frailty!

• Restores immune cell function and numbers!

The Only Required Intervention is:

• Antiretroviral Therapy (early and daily)
Telemedicine to Correctional Facilities

• Providing HIV Telemedicine to Pima County Jail and Arizona Department of Corrections since 2007.
• The crucial and solely important intervention is the addition of anti-retroviral drugs.
• Occasional monitoring

Current Clinical Practice

• See HIV patient once a year
• Laboratory tests twice a year
Upcoming Programs

- HIV TelePharmacy: twice per year
- HIV TelePrEP statewide
- HIV clinic exclusively on Telemedicine

Conclusions

- HIV is a diseases made for Telemedicine
- Telemedicine is tailor-made for HIV