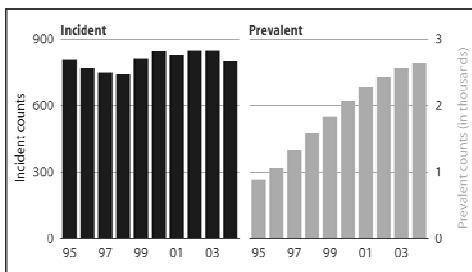


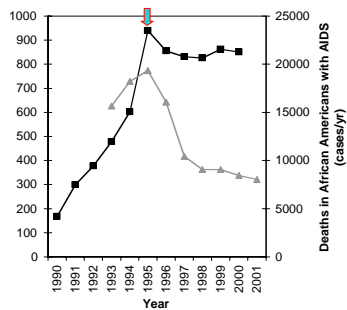
Kidney Disease, HIV, & Aging: What We Know

Christina Wyatt, MD
Mount Sinai, New York

HIV & ESRD: Incidence



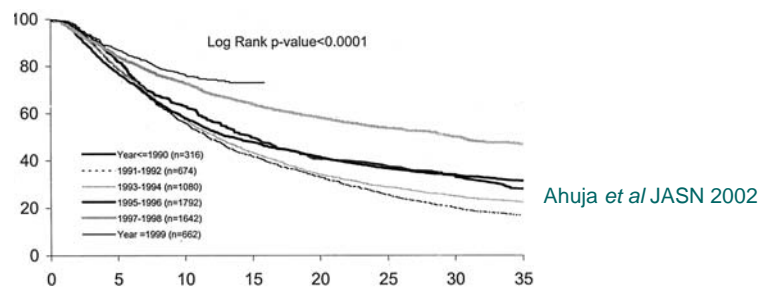
USRDS 2006 Annual Data Report



Ross *et al*, JASN 2002

HIV & ESRD: Prevalence

- True prevalence is unknown
 - USRDS data only capture “HIVAN”
- Survival has improved with HAART



HIV & ESRD: A Minority Disease

- Black Americans account for:
 - 13% of the US population
 - 50% of new HIV diagnoses
 - 29% of incident ESRD
 - 89% of incident ESRD attributed to HIVAN
- Implications for global public health

HIV & Chronic Kidney Disease

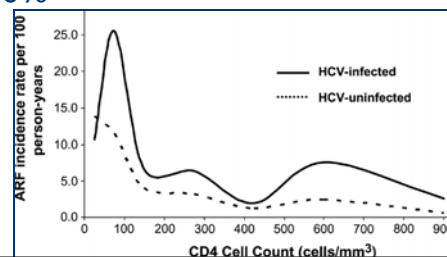
- Europe (EuroSIDA)
 - Mostly white
 - **3.5%** prevalence of CKD
- Urban US (Mount Sinai HIV clinic)
 - Mostly black & Hispanic
 - **>15%** prevalence of CKD
 - Advanced HIV & HCV co-infection increase risk
- Defined by decreased GFR +/- proteinuria
 - GFR estimates are not well validated in HIV or elderly

Mocroft *et al*, AIDS, 2007
Wyatt *et al*, AIDS, 2007

HIV & Acute Renal Failure

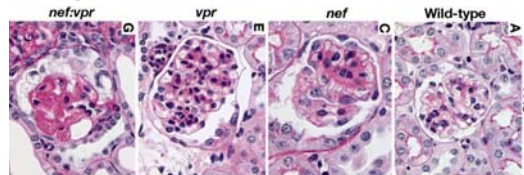
- Hospitalized patients (n=25,114 discharges)
 - Documented diagnosis in 6%
 - Associated with increased mortality
- Ambulatory patients (n=754)
 - At least 1 episode in 10%
 - Etiology:
 - Infection (52%)
 - Drug toxicity (32%)
 - Liver disease (10%)

Wyatt *et al*, AIDS 2006
Franceschini *et al*, KI 2005



HIV-Associated Nephropathy

- Classically presents with acute renal failure
 - May be more indolent in the HAART era
- Direct HIV infection of the kidney
- Viral genes *nef* and *vpr* are involved

Zuo *et al*, JASN 2006

- Host genetics are important

Special Issues in Management

- Diagnosis & treatment
 - Kidney biopsy & consideration of HAART
- Delaying progression
 - Blood pressure & glucose control
- Medication dose adjustment
- Management of complications
 - Bone disease & anemia
- Renal replacement therapy
 - Equivalent outcomes with HD & PD
 - Kidney transplant is an option in selected patients

Gupta *et al*, CID 2005

Kidney Disease, HIV, & Aging

- Kidney disease is common in HIV
- Associated with black race & HCV
- Spectrum of kidney disease is changing
- What we don't know
 - Validated estimates of GFR in HIV & aging
 - Spectrum of kidney disease in the aging cohort
 - Impact of HCV & other comorbidities
 - Impact of CKD on adherence, frailty, & outcomes in HIV
 - Impact of kidney transplant on survival
 - Role of co-infections & comorbidities