

# When to start antiretroviral therapy

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## Declaration of interests

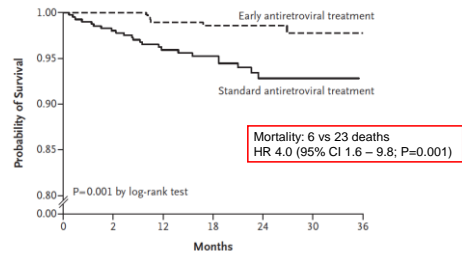
- HIV clinician and clinical researcher
  - Institution receives research and educational funding from public and commercial sources, including Gilead, ViiV, Merck, NHMRC and US NIH
  - No travel support, speakers fees or advisory boards
- Chair, ASHM HIV guideline panel
- Senior Research Fellow, Cochrane Australia

## When to start ART?



- Prolong survival
- Prevent illness
- Maximise quality of life
- Prevent HIV transmission
- Minimise drug toxicity
- Prevent drug resistance
- Preserve treatment options

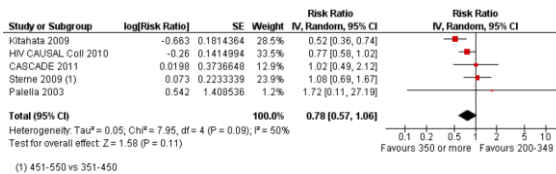
## CIPRA 001 Haiti (CD4 < 200 vs 200-350)



No. at Risk	0	12	24	36
Early treatment	408	327	153	24
Standard treatment	408	309	137	22

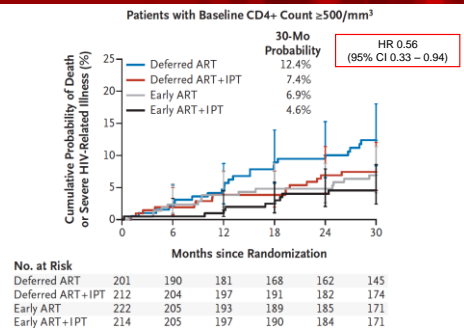
Severe et al, NEJM 2010;363:257-65

## CD4 > 500: AIDS or death

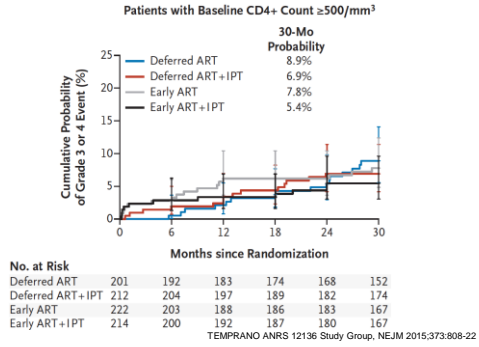


Anglemeyer et al, 7<sup>th</sup> IAS Conference, Kuala Lumpur 2013; Abstract TUPE302

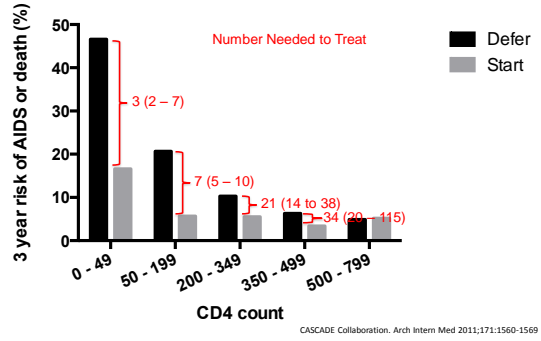
## TEMPRANO: Death or Severe Illness



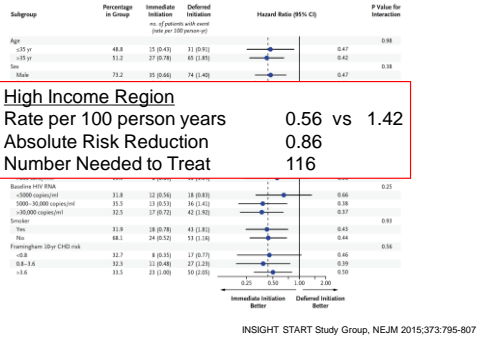
# TEMPRANO: Adverse Events



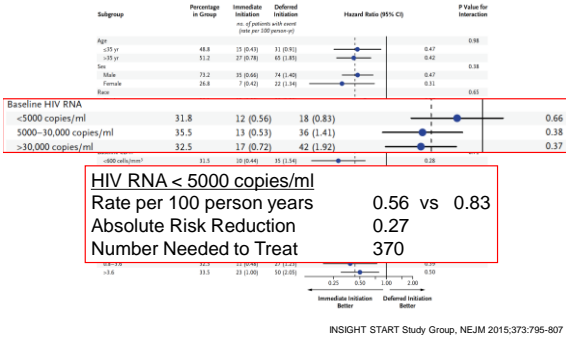
# CASCADE: AIDS or death



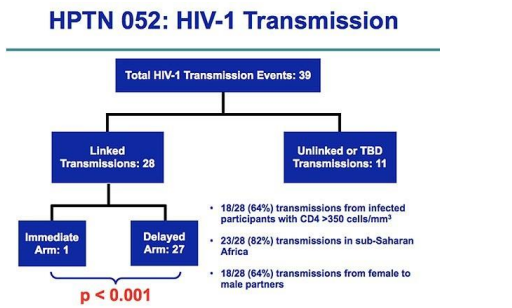
# Number Needed to Treat



# HIV viral load



# Transmission benefit: heterosexuals



Cohen et al. 6<sup>th</sup> IAS Conference, Rome 2011; Abstract MOA0104; Cohen et al. NEJM 2011;365:493-505

# Transmission benefit: male couples

Type of intercourse without a condom reported by HIV-negative partner	Linked transmissions (n)	Couple-years of follow up (CYFU)	No. of CLAI <sup>a</sup> acts	Incidence rate per 100 CYFU (95% CI)
Overall	0	149.96	5,905	0 (0-2.46)
Any CLAI	0	90.83	5,905	0 (0-4.06)
Insertive CLAI	0	77.87	3,569	0 (0-4.74)
Receptive CLAI	0	57.08	2,337	0 (0-6.46)
Any CLAI when VL <sup>b</sup> <200 copies	0	88.59	5,656	0 (0-4.16)
Any CLAI when VL >200 copies	0	2.00	237	0 (0-184.31)

<sup>a</sup> CLAI refers to condomless anal intercourse. <sup>b</sup> VL refers to viral load

Gulich AE et al, CROI 2015; Poster 1019LB

## Australian Guidance

“Antiretroviral therapy should be initiated in all people with HIV, irrespective of CD4 count”

## ASHM Sub-Committee for Guidance on HIV Management

Fiona Bisshop  
 Mark Bloch  
 Jennifer Broom  
 Andrew Buggie  
 Julian Elliott  
 Martyn French  
 Andrew Grulich  
 Neil McKellar-Stewart  
 Stephanie McLean (ASHM)  
 James McMahan  
 Phillip Read  
 Rick Varma  
 Bill Whittaker

## Principles

- The decision to start ART should take into account both **personal health** benefits and risks, and reduction in **transmission risk**
- Clinicians should **regularly discuss** the current state of knowledge regarding when to start ART with all individuals with HIV who are not yet on treatment
- All decisions to start ART should be made by the **individual with HIV**, in consultation with their health care providers and on the basis that they are fully informed and supported in their decision making.

## arv.ashm.org.au

The screenshot shows the ASHM Antiretroviral Guidelines website. The header includes the ASHM logo and the text 'ashm Antiretroviral Guidelines US DHHS Guidelines with Australian commentary'. A search bar is visible in the top right. The main content area is titled 'When to start antiretroviral therapy in people with HIV' and includes an update date of August 4th 2015. The text states that the ASHM Sub-Committee recommends that antiretroviral therapy should be initiated in all people with HIV, irrespective of CD4 count, based on the following principles:

1. Antiretroviral therapy (ART) is recommended for all HIV-infected individuals, irrespective of CD4 count, to reduce the risk of disease progression.
2. The decision to start ART should take into account both personal health benefits and risks, and reduction in transmission risk.
3. Clinicians should regularly discuss the current state of knowledge regarding when to start ART with all individuals with HIV who are not yet on treatment.
4. All decisions to start ART should be made by the individual with HIV, in consultation with their health care providers and on the basis that they are fully informed and supported in their decision making.

A note at the bottom states: 'This recommendation is consistent with guidance from the US DHHS Panel, which has recently been upgraded to an A1 Recommendation (strong recommendation based on data from randomized controlled trials) due to the publication of the results of the START and TEMPRANO Trials.'