



Contemporary Antiretroviral Therapy: Is it Time for the Generalist to Return?

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BACKGROUND

- Since the Advent of Combination Antiretroviral (ARV) Therapy, Experience with HIV Treatment Has Grown
 - Older Strategies Shown to be Ineffective¹⁻³
 - Understanding of Side Effects, Tolerability, and Efficacy of Individual Agents has Improved⁴⁻⁶
- We Studied Prescribing Patterns for ARV-naïve Pts to Evaluate Temporal Trends in Initial ARV Selection

METHODS

- Study Period: January 2000 - December 2007
- Eligibility Criteria:
 - Treatment-Naïve Patients Starting Initial Therapy
 - Not Participating in a Clinical Trial
 - Any Combination of ARV Agents Used ≥ 14 Days
- Initial Regimen Variability:
 - Number of Unique Regimens Used per Year
 - R/P Ratio (Regimens Used/100 Patients)
- Initial Regimen Treatment Share:
 - Percentage of Patients on Each Unique Regimen
- Regimen Sequence Analysis:
 - Sequence Trees for Most Common Initial Regimens

Results

Initial Regimens

- 482 Patients Started ARV Therapy Between 2000-2007 Through Routine Clinical Practice
- Number of Unique Regimens and Regimen Variability Registered a Sharp Decline over Time
 - Unique Regimens Ranged from 10-15, but Showed Steady Decline in the Last Two Years (**Figure 1**)
 - Similar Pattern for Regimen Variability (**Figure 2**)

FIGURE 1

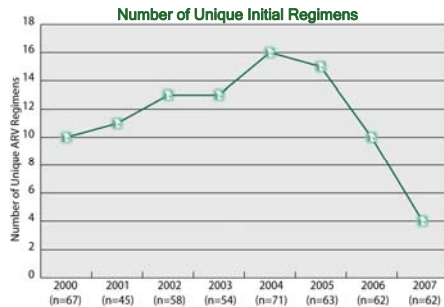
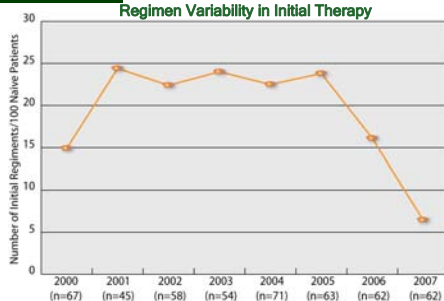


FIGURE 2

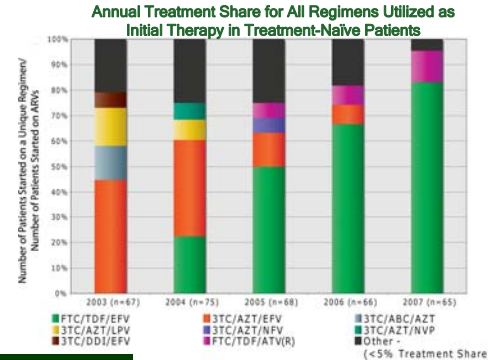


Results

Initial Regimens

- Decline in Regimen Variability Co-incident With Dramatic Changes in Prescribing Patterns for Initial Therapy (**Figure 3**)
 - FTC/TDF/EFV Showed Significant Growth (0% to 85%)
 - AZT/3TC/EFV Experienced Greatest Decline (46% to <5%)

FIGURE 3



Results

Subsequent Regimens

- 205/482 Patients Required a Regimen Change
 - 156 Patients had Unique ARV Regimen Sequences
 - 24 Switched from 3TC/AZT/EFV to FTC/TDF/EFV
 - Remaining 25 Patients had Little Regimen Overlap
- Among Patients who Started 3TC/AZT/EFV (n=135)
 - 58 Patients Utilized 17 2nd Line Regimens
 - 22 Patients Utilized 21 3rd Line Regimens (**Figure 5**)
- Among Patients who Started on FTC/TDF/EFV (n=128)
 - 13 Patients Utilized 7 2nd Line Regimens (**Figure 4**)

FIGURE 4

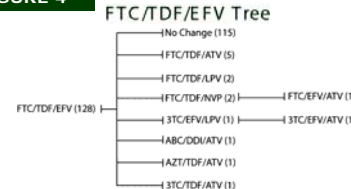
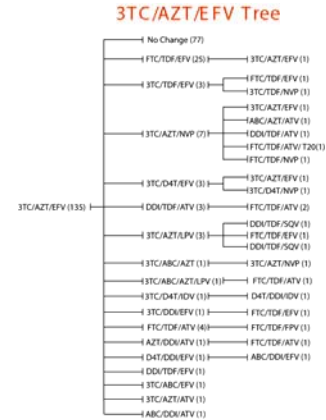


FIGURE 5



CONCLUSIONS

- Over Time, Regimen Selection for Initial ARV Therapy has Become Homogenized with 95% of Patients Starting 2 Regimens in 2007
- Subsequent Therapy Remains Complex with Marked Dissimilarity in ARV Regimen Sequences
- This Data May Inform Healthcare Policy and Point Toward an Opportunity to Incorporate Primary Care Providers More Broadly in the Treatment of HIV

REFERENCES

¹ NEJM 2003; 349(24):2304-15 ⁴ AIDS 2008; 22(15):1951-60
² NEJM 2004; 350(18):1850-61 ⁵ NEJM 2006; 354(3):251-260
³ J Infect Dis 2008; 197(8):1145-55 ⁶ Lancet 1998; 351(9119):1881-83

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