Antiretroviral use in the Midlands and East of England: Baseline data on over 10,000 HIV positive patients

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Background
The Midlands and East HIV Improving Value Network (MEHIVN) was established mid-2018, using the first regional ARV prescribing guidance from 2016 as the basis. The group consists of consultant physicians, pharmacists, specialised commissioners, patient representatives and representatives of the National HIV CRG, BHIVA and HIVPA. The remit of the group is to develop guidance on rational ARV prescribing that aims to deliver cost-effective and high-quality patient care for the NHS, whilst respecting the importance of National Guidelines and patient and clinician choice.

Methods
• The Midlands and East ARV treatment guidance have evolved so that ART regimens are grouped into “cost bands” calculated according to the sum of the prices of constituent drugs at the time of data collection.
• There are 8 costing bands (0, 1a, 1b, 2a, 2b, 3a, 3b and 4) with the price for Bands 0 regimens being < £100 per month, up through to Band 4 regimens being £1,070 per month. Band cost ranges were defined in 2016 following an ARV procurement process.
• The depiction of only “average regimen costs” within bands allows for preservation of commercially sensitive information.
• Basic principles are that when starting therapy clinicians should use drugs within the lower bands unless there are compelling clinical reasons not too.
• The guidelines (Figure 1) consider patients needing to switch ARV regimens for clinical reasons. Switching to regimens in lower cost bands are encouraged whereas moving to higher cost bands require peer review by HIV Multidisciplinary teams (MDT).
• Because of price changes in branded and generic drugs, a patient’s drug regimen can change bands over time due to price reductions of the individual components or may be an individual has switched to an alternative regimen.
• In this poster, we describe a baseline data set, derived from drug regimen costs on the 1st of April 2018 in the Midlands and East region. We describe the distribution of ARV regimens according to cost bands. All data analysis was performed on aggregated anonymised, non-identifiable patient information as per GDPR regulations.

HIV ART Dashboard
Data from the regional tracker has been used to develop the HIV Prescribing Dashboard including:
• Regional summary
• Hub summary
• Individual clinic/ Trust summary
• Also:
  • Regimen bands by percentage
  • Top ten regimen by cost and patient numbers

Results
• 285 of 40 HIV clinics in the region participated and provided baseline data on a total of 10,286 patients of which 9897 (97%) were taking ARV at the time of data collection.
• Distribution of regimens by band were as follows:
  - Band 0=626 (6%), Band 1a=242 (25%), Band 1b=113 (11%), Band 1b=113 (11%), Band 1b=225 (23%), Band 1=4=22 (12%)
• The top 10 most commonly prescribed regimens accounted for 65% of all ARV usage. The estimated regional spend on ARVs was £4,082,190 per month.
• Data has been formulated into a dashboard such that regimen use and distribution can be compared across regions and individual clinics can view their own data in comparison to the region as a whole.
• In 2016 there were only 2 BHIVA approved starting regimens in Band 1 this had increased to 8 potential regimens as of April 2018. This increased choice encourages cost conscious prescribing opportunities.

Discussion
• The Midlands and East Improving Value Network in collaboration with participating Trusts have been able for the first time to collect ARV data in real time for the whole region, commissioning hub level, and at the individual trusts level.
• Moving forwards it will allow individual trusts to compare their ARV prescribing data with Regional, national and other centres, and that of their peers and other centres.
• It will allow individual trusts to evaluate their own data and make informed decisions where potential cost savings can be made.
• The Regional ARV prescribing guidance has encouraged rational prescribing whilst still maintaining clinician and patient choice by creating a range of regimens available for use at a lower costs.
• The concept of considering prescribing in regimens which sit within defined cost bands has raised awareness of ARV costs among clinicians when prescribing.
• Perhaps one of the most important effects has been to provide the encouragement to pharmaceutical companies to make their drugs available at competitive prices so that clinician and patient choice is maintained.
• This data cannot be collected without significant input from clinical and administrative staff at the clinic level. Any cost savings produced need to be considered against the cost of staff time required to make these changes. A call for gain sharing of saving to reinvest in services has been called for by member of the MEHIVN group.
• Aligning data collection with the National HARS data returns needs to be prioritised.
• We would like to thank all individuals and Trusts involved in this data collection process. It is appreciated.

Figure 2: Increasing ARV choice at lower cost over time within the Midlands and East ARV prescribing guidance

Figure 1: Midlands and East HIV: Antiretroviral Therapy (ART): Prescribing Implementation Guidance for Adult and Adolescent Patients Starting and Revising Treatment 2016

Figure 3: Midlands and East HIV: ART Regimen use by region

Table 1: Top 10 regimen by cost and patient numbers

Table 2: Regimen bands by percentage