The England experience: commissioning & prescribing efficiencies

Laura Waters
Consultant Physician
CNWL, Mortimer Market Centre, London
Content

• HIV in the UK/England
• Types of health care funding
• Health care funding & commissioning in England
• Facing up to the challenge
• The future
HIV TODAY: UK
Long-term care for people living with HIV

The most recent estimates are that 101,200 people live with HIV in the UK, of whom 13,500 are unaware of their infection (Kirwan et al 2016). For people who are diagnosed early and who have consistent antiretroviral (ARV) therapy, HIV can be clinically controlled for the long term. Because HIV was only first recorded in the 1980s, long-term care for people living with HIV is still a new phenomenon, with no prior body of knowledge to draw on. Services are developing in real time as the first cohort of people with HIV is growing older. HIV particularly affects a number of key population groups, compounding other difficulties that they may face (see box below). The number of older people with HIV is increasing rapidly because effective treatment enables them to stay well, and because of an increase in people newly diagnosed at an older age. Currently, around one in three people (30 per cent) living with HIV in England is aged 50 or over (Kirwan et al 2016, see Figure 2). By 2028, that proportion is projected to rise to more than half (54 per cent) (Yin et al 2015).

As people grow older with HIV, they are likely to develop other medical conditions associated with ageing (such as hypertension or osteoporosis). Some of these conditions are exacerbated by HIV and its treatment.

Figure 2 Number of people accessing HIV specialist care, United Kingdom, 2006–2015, by age

Source: Kirwan et al 2016
UK continuum of HIV care

- PLWH: 101,200
- Diagnosed: 87%
- On ART: 83%
- Suppressed: 78%

Life expectancy: 2017

Survival of HIV-positive patients starting antiretroviral therapy between 1996 and 2013: a collaborative analysis of cohort studies

The Antiretroviral Therapy Cohort Collaboration*
UK CHIC life expectancy: 2014

Expected age at death*

Men

-- Male UK life expectancy 78 years

--- Expected age at death for a person aged 35 years with different durations of antiretroviral therapy according to current CD4 count and viral load suppression

Female UK life expectancy 82 years

Women

Viral load ≤400 copies/ml
- CD4 ≥350
- CD4 200–349
- CD4 <200

Viral load >400 copies/ml
- CD4 ≥350
- CD4 200–349
- CD4 <200

* Expected age at death for a person aged 35 years with different durations of antiretroviral therapy according to current CD4 count and viral load suppression
Focus on England

Number of PLWH accessing care 2015

- **TOTAL UK**: 88,769
- **London**: 35,972
- **England**: 81,062
- **Scotland**: 4,191
- **Wales**: 1,877
- **Northern Ireland**: 934

HEALTH FUNDING
Types of health care funding

- Taxation
- Private health insurance
- Social health insurance
- User charges
Taxation

- **Types:**
  - Direct/indirect, general/hypothecated, central/local regressive/progressive

- **Examples (tax = main funding):**
  - Australia, NZ, Canada, Nordic

- **Pros**
  - Equitable, efficient
  - Strong incentive to control spend

- **Cons**
  - Health costs rise > tax
  - Politicisation of health (?instability)

https://www.kingsfund.org.uk/publications/how-health-care-is-funded accessed 17th July 2017
Private Health Insurance (PHI)

- Individuals or employers
- Contribution \( \approx \) risk

**Pros:**
- Competition, less state burden

**Cons:**
- Inequitable, costly, regulatory requirements, regressive

Social Health Insurance (SHI)

- Employees & employers pay to cover defined service package
- Collected by independent bodies responsible for paying providers
  - **Example**: Germany 14.6% gross income shared with employer + capped co-payments
- **Pros**: equitable (not risk based), efficient, less uncertainty, transparent
- **Cons**: higher taxes, costly if providers ++

https://www.kingsfund.org.uk/publications/how-health-care-is-funded accessed 17th July 2017
User charges as additional funding

- Pay directly for some/all care at point of care or ‘medical savings accounts’
- Most European & OECD countries = only a small %
- Developing countries = large part of health care financed e.g. > 70% health expenditure in India

**Pros:**
- Extra funding, deters mis-use

**Cons:**
- Deters appropriate use, delayed treatment (££), admin £

Kings Fund conclusion

“Regardless of how health care is funded, all countries face similar challenges – namely, how to meet rising demand for services and transform care in response to an ageing population and changing patterns of disease”

“This is leading to increased pressures on services and funding challenges in countries around the world”

https://www.kingsfund.org.uk/publications/how-health-care-is-funded accessed 17th July 2017
How the NHS is funded

• 98.8% from general taxation and National Insurance
• 1.2% from patient charges
  – Dental fees, prescription charges, bedside TV (!)
  – 90% prescriptions in 2016 **free** due to exemptions
• 10.6% of the population has private health insurance (mainly corporate)
• **Funding is not keeping pace with demand nor inflation**
NHS provider finances: England regions

UK vs EU-14 average

Figure 2: UK NHS spending to match EU-15 by 2020/21

HEALTH COMMISSIONING IN ENGLAND
Health & Social Care Act 2012

- Biggest re-organisation of NHS services since their inception
- It’s complicated....
What it means for HIV

Local authorities
- Sexual health
- Drug & alcohol services
- (Most) HIV testing

NHS England
- HIV treatment & care
- Drugs for HIV prevention
- Antenatal HIV screening

Primary care
- Pretty much everything else
- (Some) HIV testing
HIV commissioning

• Part of specialised services costing >£15bn a year

• There are 6 National Programmes of Care:
  – HIV Clinical Reference Group (CRG) sits within ‘Blood & Infection’ programme of care along with 5 other CRGs

• HIV CRG advises NHS England:
  – On HIV policies e.g. immediate ART policy
  – National policies for new drugs (all since Stribild)
Expectations

• Continual review of services and prescribing to ensure most efficient use of stretched resources
• To do the same/more for less
• To develop & follow cost-based regional guidelines
  – These haven’t contradicted BHIVA guidelines yet
• To use generics, where available & suitable, even if that means more pills
Example 1: national pressure

- Commissioning levers where meeting certain pre-agreed goals attracts income
- **Examples:**
  - Reduced CD4 monitoring (annual >350, stop >500)
  - Replacement of face-to-face consultations with ‘virtual’
  - Increased recruitment to clinical trials
  - Cost-based ART switches:
    - PI/ritonavir to PI/cobicistat FDC
    - Use of generics (including splitting pills)
## NHS England ART Switching Project

<table>
<thead>
<tr>
<th>Current regimen</th>
<th>Switch to</th>
<th>Start Date</th>
<th>Min Proposed %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atripla</td>
<td>Truvada + gEFV</td>
<td>12/2016</td>
<td>60%</td>
</tr>
<tr>
<td>Darunavir 800 + Ritonavir</td>
<td>Rezolsta</td>
<td>07/2016</td>
<td>50%</td>
</tr>
<tr>
<td>Atazanavir 300 + Ritonavir</td>
<td>Evotaz</td>
<td>07/2016</td>
<td>60%</td>
</tr>
<tr>
<td>Kivexa</td>
<td>gABC/3TC FDC</td>
<td>12/2016</td>
<td>95%</td>
</tr>
<tr>
<td>Nevirapine Modified Release 400mg</td>
<td>gNVP MR 400mg</td>
<td>London: 09/2016</td>
<td>95%</td>
</tr>
<tr>
<td>Dolutegravir</td>
<td>Raltegravir</td>
<td>07/2016</td>
<td>No % switch, but consider switch</td>
</tr>
<tr>
<td>Triumeq</td>
<td>Raltegravir + gABC/3TC FDC</td>
<td>On hold until 09/2017</td>
<td></td>
</tr>
</tbody>
</table>

Personal communication, Janette Harper, Lead Commissioner HIV for NHS England
Forecast savings

- **Year 1**
  - £10m from switching

- **Year 2**
  - £32m from switching
    - £15m from Kivexa to ABC/3TC FDC alone

---

Personal communication, Janette Harper, Lead Commissioner HIV for NHS England
Perhaps the most controversial….

WHAT?!
You’re not using tenofovir-AF unless the patient cannot have abacavir or tenofovir-DF?!

Ja, Si, Oui!

Reference: NHS England: 16043/P
Example 2: London 1st line ARV policy

Discuss clinical research options:
- HIV resistance
- Any cautions or contraindications with ABC/3TC?
  - Baseline HIV viral load (if ABC/3TC indicated)
  - Clinical caution with efavirenz?
  - NHS England London lowest cost acquisition

Clinical study available & suitable for enrollment?
- Yes: Enroll into study
- No:
  - HIV resistance?
    - Yes: Consider boosted PI and/or refer for MDT discussion
    - No:
      - Hepatitis B Surface antigen +, HLA-B*5701 +, and/or cardiovascular risk >10%?
        - Yes:
          - VL >100,000 c/ml
            - No:
              - Current/recent history of mental health diagnosis, or shift work?
                - Yes: Refer to HIV MDT for discussion of regimen with lowest acquisition cost which meets individual and clinical needs.
                - No: ABC/3TC
            - Yes: TVD
          - No: ABC/3TC
        - No:
          - Current/recent history of mental health diagnosis, or shift work?
            - Yes: Refer to HIV MDT for discussion of regimen with lowest acquisition cost which meets individual and clinical needs.
            - No: ABC/3TC
          - No: ABC/3TC

Lowest cost acquisition regimen not suitable for other clinical reasons?
London policy on generics

Prescribing of generic ARVs

Generic agents are widely used across the NHS in all disease areas; the use of generics in HIV could result in significant financial savings to the NHS.

• Where there are contracts for generic ARVs, patients should be switched from the branded equivalent at the earliest opportunity, taking into account the need for discussing and agreeing the switch with patients prior to it, providing appropriate information, and avoiding drug wastage.

• The use of generic NRTI fixed dose combination (FDC) will be used in preference to single tablet regimens (STRs).
Example 3: local pressure

- Negotiations with HIV commissioners & local Trust

**Examples:**

- **Reduced pathology costs**
  - Pooled STI screening
  - Creatinine vs whole renal profile
  - Hepatitis C antigen vs RNA

- **VAT savings on drugs**
  - Home delivery
  - Community pharmacy
  - Outsourced (privatised) pharmacy
Use of generics

• The market & potential savings will vary
  – Existing providers
  – Regulatory climate
  – Typical cost difference

• In England
  – Broadly no generics until patent expiry
  – Generic use promoted
  – Generics typically at least 70% cheaper than branded
Current generics use

- ‘Automatic’
  - Kivexa to generic abacavir/lamivudine
  - Efavirenz, nevirapine-SR, nevirapine-MR, lamivudine

- Offered/encouraged
  - Atripla to Truvada + generic efavirenz
  - Suitability for abacavir/lamivudine if on different backbone
Are we doing the right thing?

BENEFICENCE  NON-MALEFICENCE  JUSTICE  AUTONOMY
Are we doing the right thing?

BENEFICENCE  NON-MALEFICENCE  JUSTICE  AUTONOMY
Are we doing the right thing?
Generics

• **Bioequivalent**
• Several studies support bioequivalence including ‘random check’ studies\(^1\)
• Excipients may vary
  – Lactose of content nevirapine preparations
  – Monitoring is CRUCIAL
• Cohort evidence to support switch\(^2\)

“But STRs are better!”
Using tenofovir-DF over tenofovir-AF unless clinically indicated

- Much debated (and criticised)

- **Data supporting TAF safety:**
  - Surrogate markers vs clinical end-points
  - Validity of DEXA end-points in a largely young(ish) male population?
  - Lack of cardiovascular surrogate marker/cohort data

- **Main arguments for using TDF:**
  - Safe for many
  - Regular monitoring
  - Imminent generics savings
Dat’AIDS group:

risk of CKD by D.A.D score

P < 0.001), a lower CD4þ T-cell count nadir (165 vs. 266 cells/m, P < 0.001) and a lower baseline CD4þ T-cell count (211 vs. 292 cells/ml, P < 0.001) by comparison with patients who did not develop CKD. Median D:A:D score were 5 (IQR, 2; 8) among those who developed CKD and –2 (IQR, –6; 3) among those who did not develop CKD. Using the three risk-categories, 3796 (60%) patients were at low risk and presented 22 (10%) patients with CKD.
Dat’AIDS group: risk of CKD by D.A.D score & ART regimen

Fig. 1. (a) Incidence of CKD depending on the D:A:D score and (b) combined with the choice of first regimen.

Flandre P et al. AIDS 2016, 30:1433–1438
Author conclusions

“tenofovir alafenamide comes with promises of less renal toxicity than tenofovir.....in patients with low risk of CKD, tenofovir remains safe for the kidney”

“in low-risk patients tenofovir-including regimens may be safely prescribed, with an economic benefit due to soon available....generic formulations”
Key to all this...

- **PATIENT ENGAGEMENT**
- Patient representatives at every level of decision making
- Key role of peer support
- Patient information, developed with patients
- Preservation of **choice**
THE FUTURE
King’s fund report

The future of HIV services in England
Shaping the response to changing needs

Authors
Alex Baylis
David Buck
Jane Anderson
Joni Jabbal
Shilpa Ross

April 2017
The care pyramid

- Complex
- At Risk
- Stable

Arrows indicate transitions between levels.
Conclusion

We’ll continue to work to protect our models of care (for now at least)
Thank you!

lwaters@nhs.net

@drlaurajwaters