

HIV Treatment and innovations in care

5th UK Conference of people living with HIV
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ART in 2022: 10 single tablets + 1 injectable ART



Atripla



Biktarvy



Delstrigo



Dovato



Eviplera



Juluca



Odefsey



Stribild



Symtuza



Triumeq



CAB-LA +
RPV-LA
injections

Limited access to some based on pricing.

Looking forward...

1. Pipeline: new drugs and formulations.
2. Guidelines, standards & national commissioning.
3. Care: long-term health (ageing) and changes to the NHS.



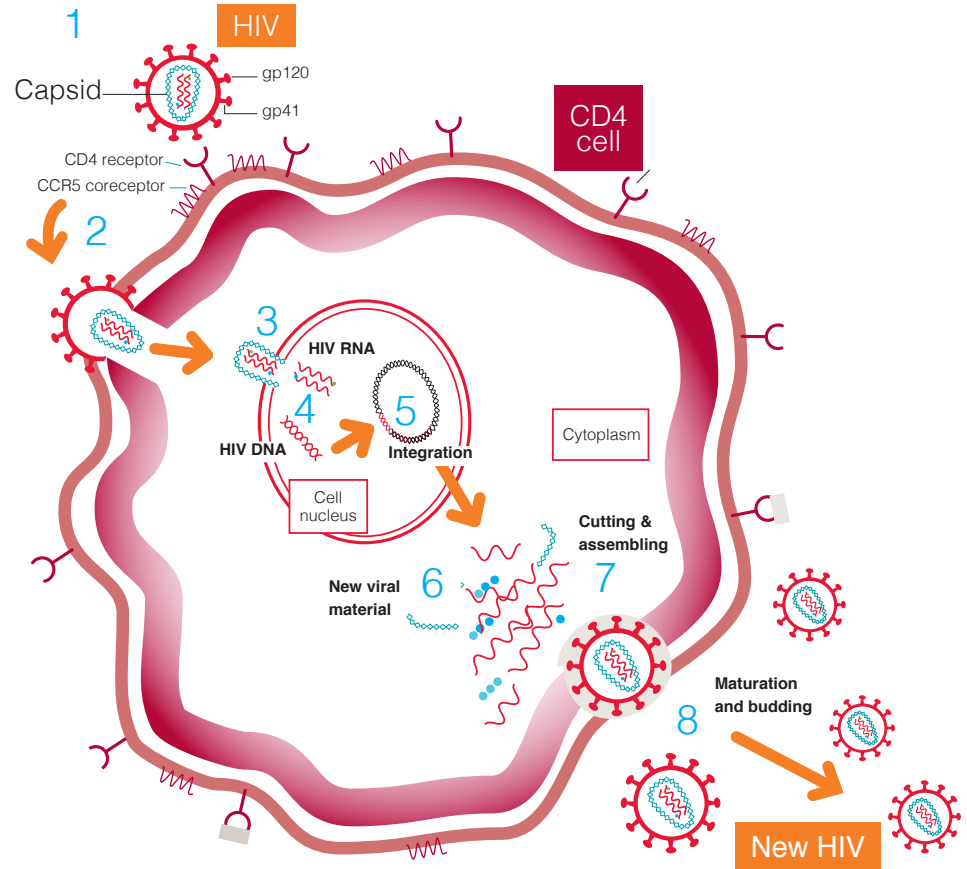
1. Treatment pipeline

- New drugs: lenacpavir, islatravir, maturation inhibitor, bNAbs.
- New formulations: weekly or monthly oral pills, long-acting injections, implants and infusions (3-6 monthly).
- Immune-based treatments – bNAbs might allow breaks from ART.



HIV lifecycle

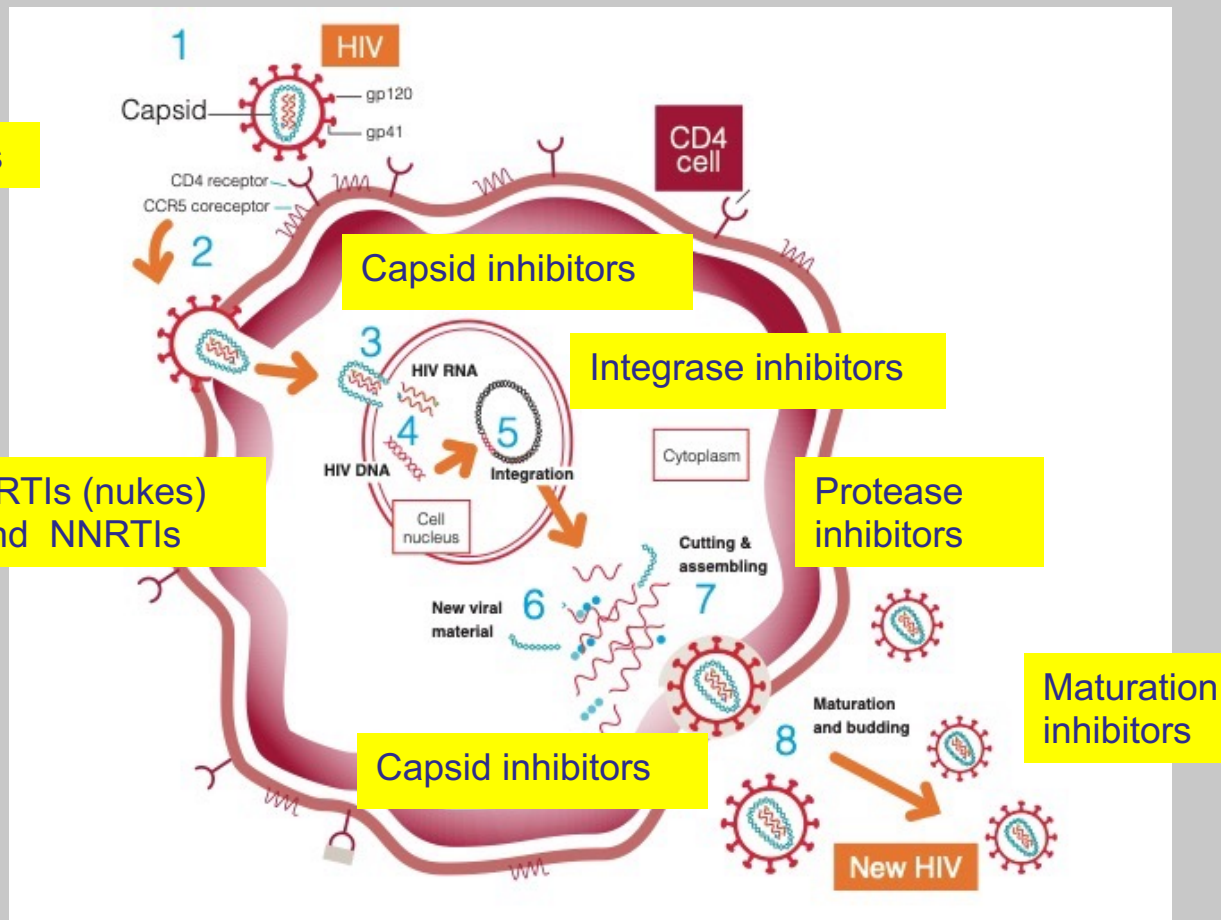
Stages where
drugs can work



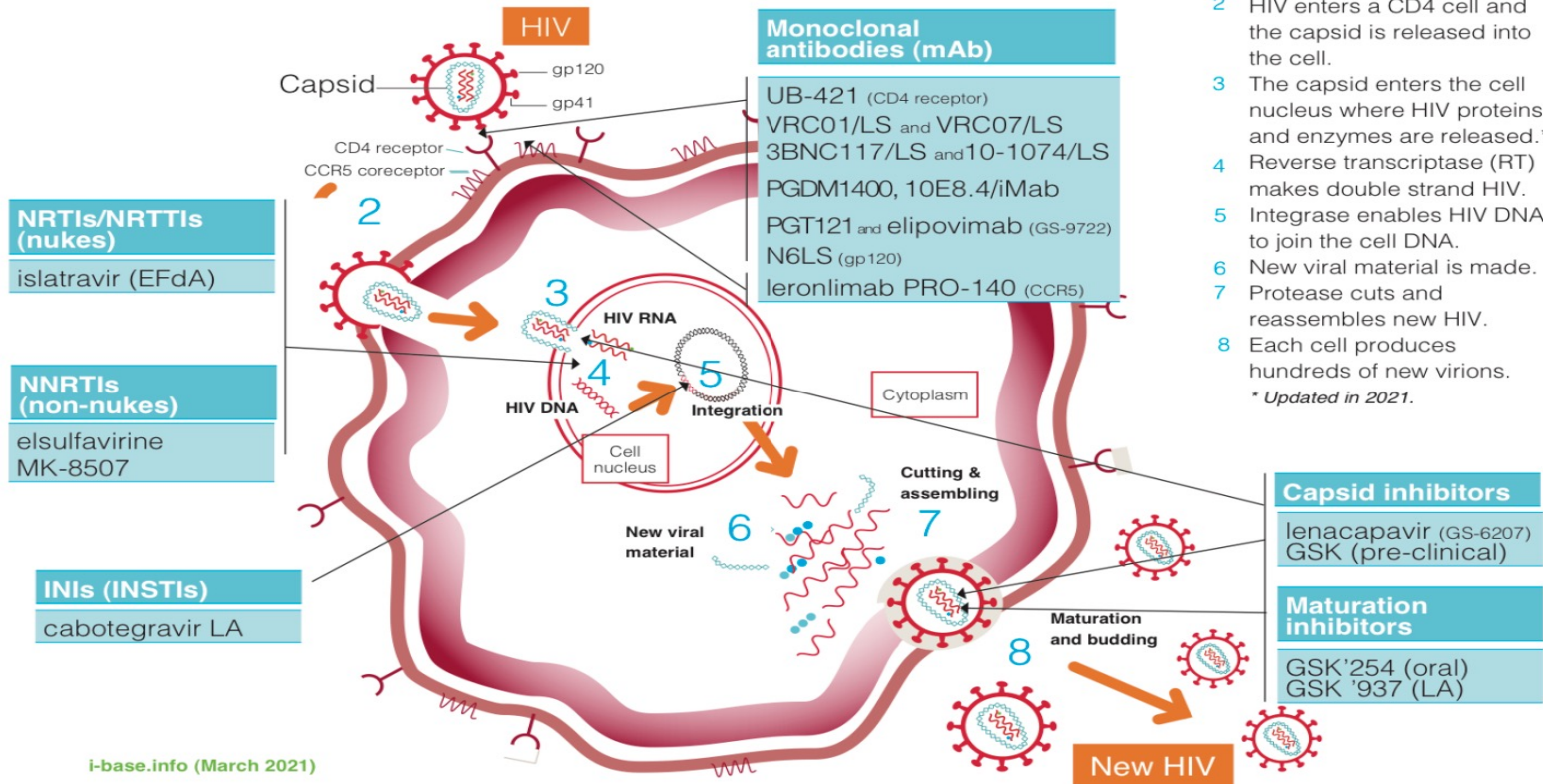
Drug targets

Entry inhibitors

1. Entry inhibitors.
3. Capsid inhibitors.
4. NRTIs (nukes) and NNRTIs.
5. Integrase inhibitors
6. Protease inhibitors
7. Capsid inhibitors
8. Maturation inhibitors



HIV pipeline 2021: targets in the HIV lifecycle



bNAbs

Broadly neutralizing monoclonal antibodies

- Isolated from people with strong immune responses to HIV. Adapted in long-acting formulations
- Active against HIV and boost immune system.
- Used as treatment and for prevention

RIO study

- 70 participants diagnosed in early infection and started early ART.
- Undetectable viral load for >6 months.
- Randomise to bNAb or placebo for 24 weeks.
- Stop ART until viral load is either >1000 for six weeks or confirmed >100,000.
- Potential to stay undetectable off-ART for more than 6 months.

Formulations

Long acting injections or infusions.

Slow release microneedle patches.

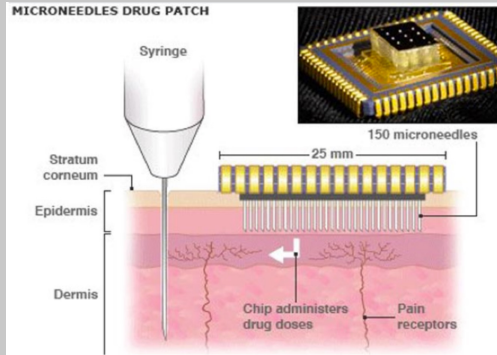
Implants etc.

Already used for *contraception (choice)*, bone health (*convenient*) and schizophrenia (*adherence*),

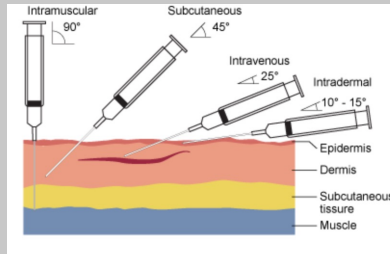


Alternatives to oral pills

Microneedle drug patch



Long-acting depot injections



Implants



Vaginal rings



Thanks to Kim Scarsi

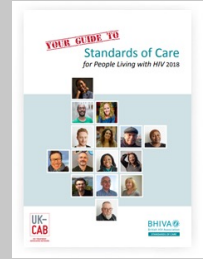
2. Guidelines...

UK BHIVA (2022) - ie:

- Integrase-based ART

EACS (2021)

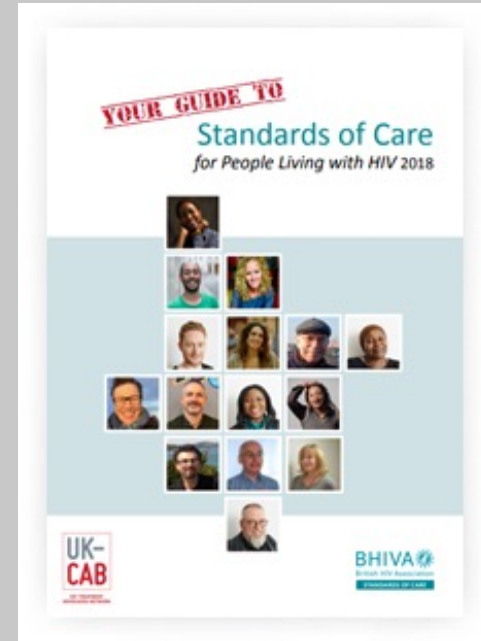
- Practical management: ageing, depression, mental health, sexual health, diabetes, exercise etc.



UK Standards of care

8 sections covering
different aspects of care.

Plus suggested audits.



3. Future care and ageing...

UK BHIVA (2022) - ie:

- Integrase-based ART

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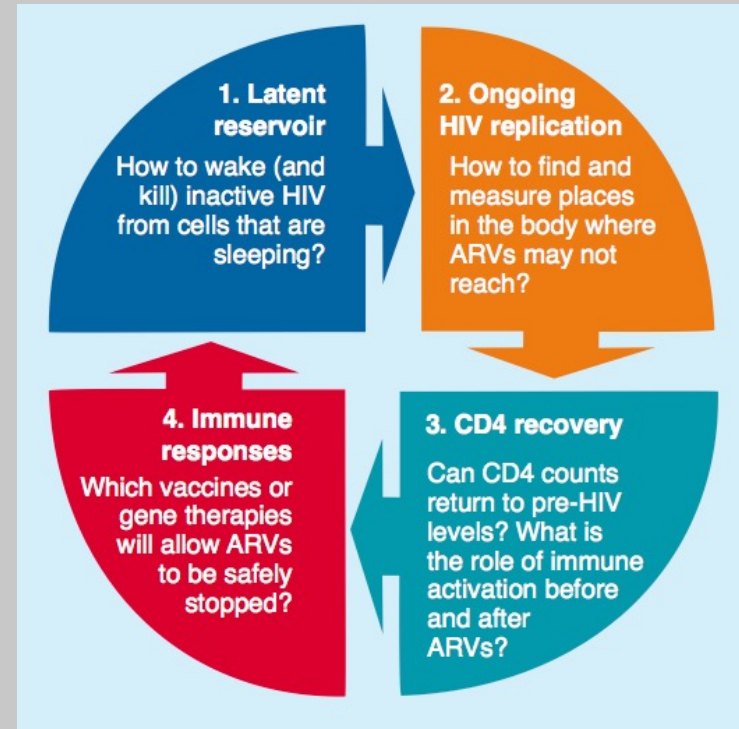
- Practical management: ageing, depression, mental health, sexual health, diabetes, exercise etc.



Future cure...?

New international focus on cure-related research.

(i) Eradication (cure) or
(ii) Remission (where viral load stays undetectable without need for ART).



1. Treatment summary

- Is there either need or demand for alternatives to daily oral ART.
- Define population.
- How to ensure access?

2. Guidelines summary

- Are their benefits or gaps in guidelines?
- How do we influence these?
- How to engage and protect NHS.

3. Ageing and future care summary

- What are our biggest concerns and needs for long-term care?
- What new services need to be developed or expanded?

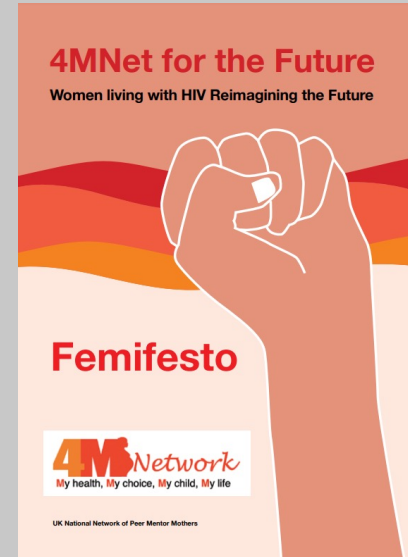
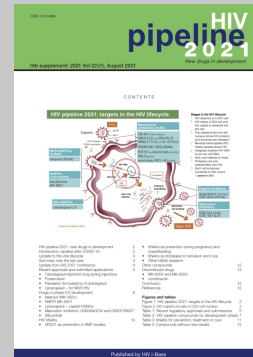
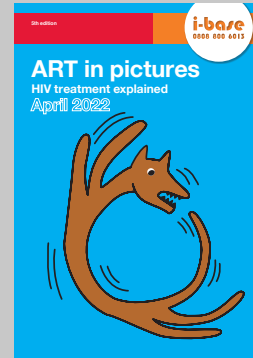
Questions?

i-base
HIV treatment
information
service

Calls are free from
land lines and most
mobile networks.
All calls are
confidential.

ASK A QUESTION
by phone, email or online
0808 800 6013
questions@i-base.org.uk
www.i-base.info

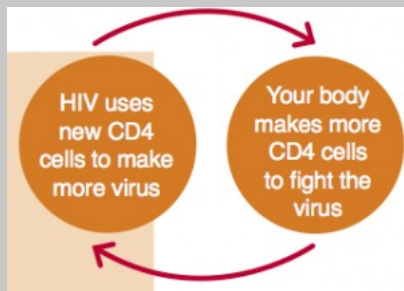
Information to be used in discussion with your doctor. Registered charity no. 1061905.



Additional slides



The immune system in overdrive



When not on ART your immune system is steadily worn down.

High viral load increases risk of heart attacks, cancers and other serious problems.



On ART the immune system rests

HIV treatment (ART) stops the virus lifecycle. This lets your immune system recover and become stronger again.

ART lets your immune system rest.

Even a really low CD4 count can return to much safer levels.

