

The Royal Liverpool and **Broadgreen University Hospitals** 

# LONG ACTING ARVS CASE STUDY CASE STUDY

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# **CONFLICTS OF INTEREST**

NHS
The Royal Liverpool and
Broadgreen University Hospitals
NHS Trust

I have **no potential conflict of interest** to report

#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# CONFIDENTIALITY



Name of patient has been changed for confidentiality reasons

#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# **LEARNING OBJECTIVES**

The Royal Liverpool and Broadgreen University Hospitals

- Background
- Diagnosis
- Referral
- Case Study
- Outcome

# **BACKGROUND**

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- 'Sam' 24 year old female
- Diagnosed with HIV July 2015
- 19 at time of diagnosis



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# **BACKGROUND**



- Brought up by father mother left when Sam was a baby
- Looked after child under care of social services
- Poor standard of housing
- History of alleged sexual abuse



# **BACKGROUND**

The Royal Liverpool and Broadgreen University Hospitals

- Severe ADHD on Ritalin since age of 4
- Poor adherence with meds / clinic attendance
- Sister previously in prison
- Brother sectioned for severe mental health issues



## **DIAGNOSIS**

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- Diagnosed July 2015 CD4 615 Viral Load 33,322
- Keen to start treatment
- Poor clinic attendance
- Lack of contact
- Multiple difficulties encountered in clinic



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# **DIAGNOSIS**

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- "Emotional, highly strung and impulsive"
- Incredibly impatient, unable to concentrate for long
- Disruptive and verbally abusive to staff
- Would only see certain staff
- Often refused to have bloods taken.



#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

## REFERRAL

- The Royal Liverpool and Broadgreen University Hospitals
- Referred to HIV Community Team September 2015
- November 2015 admits to having unprotected sex
   with multiple partners
- December 2015 commenced on on Truvada,

Darunavir and Ritonavir with community support



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

## REFERRAL

The Royal Liverpool and Broadgreen University Hospitals

- Refuses to discuss partner notification / contact tracing
- HIV Community Team asked to visit for secondary dispensing
- Stopped taking ARVs after 4 days due to side effects



The Royal Liverpool and
Broadgreen University Hospitals

- Nil engagement 2016
- Took 1 Triumeq in April 2017!
- Commenced on Rezolsta in May 2017
- June 2017 Viral Load 128 (33,322)
- Father dies June 2017



#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- June 2017 threatening behaviour from brother
- August 2017 Viral Load 6,083 (128)
- November 2017 moves into hostel contact lost
- Feb 2018 Sam phones with new number
- Housing incredibly poor / undesirable private landlord



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Non-adherence / behaviour likely due to ADHD
- ADHD linked to impulsiveness
- Sam incredibly forgetful / easily distracted
- Often asleep when visiting
- Insomnia common symptom of ADHD



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Switched to Genvoya in June 2018
- June 2018 Viral Load 4,015 (6,083)
- July 2018 sexual health screen performed at home
- Tested positive for chlamydia and gonorrhoea
- Treated at home with IM and oral antibiotics



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- August 2018 Viral Load 96 (4,015)
- Individual discloses he paid for unprotected sex with

#### Sam

- Rapid test performed at base
- Referred to sexual health clinic to commence PEP



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Sam then informs us someone else has accused her of transmitting HIV and considering legal action
- Later found to be false allegation
- Decision made to suspend home visits
- Issues with other people on the premises



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- August 2018 MDT discussion consultant consults trust lawyers, GMC and BHIVA ethics board
- Referral made to Safeguarding Team
- Referred to social worker who felt Sam did not

have capacity and wanted to involve the police



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Deemed to have capacity by consultant
- August 2018 MDT discussion decision to apply for use of long acting intramuscular injection
- September 2018 Viral Load 1996 (96)
- Initiated onto Symtuza took intermittently



#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Sam has no resistance to ART
- Application rejected due to concerns around lack of engagement and potential risk of resistance
- Decision appealed under compassionate use



#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Letters of support written by our team and psychiatrist to board for approval
- Psychiatrist states worse case of ADHD he has ever seen
- November 2018 Viral Load 21,495 (1996)



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- December 2018 appeal upheld and approved on the proviso that we obtain a further CD4 / viral load and another integrase resistance screen
- Contraceptive injection administered
- January 2019 Viral Load 14,921 (21,495)



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Cabotegravir 600mg / Rilpivirine 900mg long acting injection arrives from USA and administered

14th February 2019 in acute setting

- Difficulties drawing up / giving injection
- Baseline viral load 27,296 (21,249)



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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- Sam contacted the team 18th February 2019
   complaining of pain in injection site used for
   Cabotegravir
- Oral antibiotics for localised infection –
   resolves quickly



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

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Rescue bloods done 23rd February 2019

Viral Load 66 (27,296)

Repeated 27th February

Viral Load 41 (66)



LONG ACTING ARVS - WHICH PATIENTS AND HOW?

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- Second injection administered 11th March 2019 in acute setting. Contraceptive implant fitted in GUM
- Sam complained of pain in both injection sites
- Sam expresses reluctance to continue
- Pain soon resolves



# **OUTCOME**

Viral load repeated 20th March 2019

**UNDETECTABLE!** 

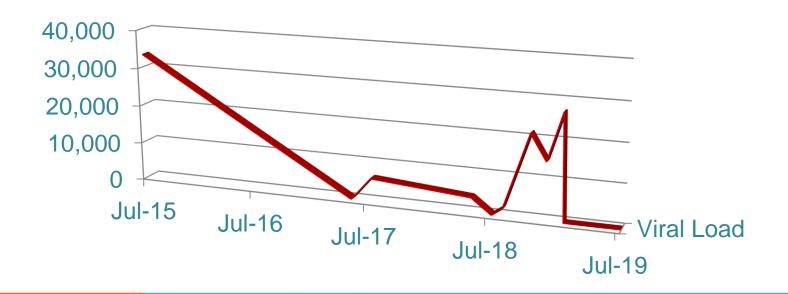




#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# **VIRAL LOAD OVER TIME**





#### LONG ACTING ARVS – WHICH PATIENTS AND HOW?

#### **OUTCOME**

The Royal Liverpool and Broadgreen University Hospitals

- Has had 6 further injections administered at home
- Viral load remains undetectable monitoring now
   3 monthly
- Has since moved into better (council) accomodation and is receiving correct benefits



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

## **OUTCOME**

The Royal Liverpool and Broadgreen University Hospitals

- Engagement dramatically improved
- Improvement in mental health and self

esteem / self care

- Risk of onward transmission eliminated
- Implications for use in other patients



LONG ACTING ARVS – WHICH PATIENTS AND HOW?

# **MAIN MESSAGES**

The Royal Liverpool and Broadgreen University Hospitals

- Injectable ARVs are clearly appropriate for use in complex patients with adherence issues
- Benefits include reduction in HIV transmission and better health outcomes for patients



# **ACKNOWLEDGEMENTS**

NHS
The Royal Liverpool and
Broadgreen University Hospitals

- Sam
- Virology Education
- My colleagues in HIV Community Team
- Doctors and staff at the Royal Liverpool

# Hospital

Voluntary sector (Sahir House)



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# **ANY QUESTIONS?**





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