CLINICAL SKILLS: EXPLAINING A DIAGNOSIS OF HUMAN IMMUNODEFICIENCY VIRUS (HIV)

HIV is a common condition, with over 100,000 people in the UK living with the disease. Up to a third of these do not know they have HIV and you may be asked to explain HIV to a patient with a new diagnosis.

OSCE scenario: *This 25 year old man has recently been diagnosed with HIV and has some questions. Please discuss with him.*

Introduction

- Introduce yourself
- Wash your hands
- Ask permission to discuss his recent diagnosis with him
- Remind him that anything you discuss will be confidential
- Start by checking his understanding 'tell me what you understand about HIV'

What is HIV?

- HIV is a virus that attacks the body's immune system
- Untreated it can be serious and cause you to suffer from infections
- However, good treatments are now available and most people living with the disease in the UK live a normal life-span
- If they ask about AIDS:
    - AIDS is 'acquired immunodeficiency syndrome'
    - This is when the HIV virus has become very active in the body, usually because no treatment has been taken
    - Increased risk of unusual, difficult-to-treat and potentially life-threatening infections

How did I get it?

- There are lots of different ways you can contract HIV:
    - Sexual intercourse with an affected individual
    - Sharing of needles during intravenous drug use
    - Transfusion of infected blood products (rare in modern medicine)
    - Transmission from mother to baby
    - Healthcare workers: needlestick injury, blood splash
- If there is a known method of transmission then explain to the patient that other people at risk will have to be tested for the condition
- The patient may not know how they contracted HIV – the test cannot tell them where or when they contracted it.

What are the symptoms?

- May not have any symptoms
- Acute HIV can cause a fever, lymph node swelling and a generalised rash
- Chronic HIV symptoms are usually related to infections that you contract rather than underlying HIV

What is the treatment?

- There are three main-stays of treatment:

    1. ***Treatment of HIV virus***
        - **a.** Using antiretroviral therapy (ART)
        - **b.** This is usually a combination of three medications (can sometimes be given in one tablet)
        - **c.** Medications can have serious side effects but you will be informed about these and how to look out for them
        - **d.** You will likely be starting ART soon and will be on medications for life

    2. ***Preventing infections***
        - **a.** Depending on your blood tests (CD4 count) you may be given medications to prevent you developing serious infections before you get them (primary prophylaxis – see **Table A** below)
        - b. Depending on occupational and environmental exposure other treatments may also be given e.g. syphilis prophylaxis

    3. ***Treating infections***
        - ***a.*** There are different types of infection which will be treated with different types of medication (see **Table B** below)
        - ***b.*** Some infections can cause an increased risk of cancer e.g. Kaposi's sarcoma, lymphoma

- Your HIV care will be looked after by a specialised HIV team who will monitor your treatment and any potential complications

Can I give the virus to others?

- Advise yes, the virus can be transmitted by sexual and blood-transmission, as well as vertical transmission (i.e. mother to baby) if they become pregnant
- To avoid this they should:
    - Have protected sex (and inform their sexual partner)
    - Not donate blood products
    - Not share products that may contain traces of blood e.g. razors, toothbrushes, needles
    - Comply with ARV treatment which will lower viral load and reduce transmission probability
- If they want to become pregnant reassure them that with well-managed HIV many women have HIV negative children
- Advise that anyone at risk of previous transmission should have an HIV test

Finish

- Ask if they have any further questions
- Offer leaflets/information as to where they can get further information e.g. counselling services
- Thank them for their time and give contact details of yourself/HIV team

For reference: prophylaxis and treatment of infections in HIV

Table A – primary prophylaxis in HIV

Condition	Medication	When to start	When to stop
Pneumocystis	Co-trimoxazole	CD4 < 200	CD4 > 200
TB	Isoniazid	+ve Tuberculin skin test but no signs active TB OR close contact with known active TB	After 6 months
Mycobacterium avium complex (MAC)	Azithromycin once/week	CD4 < 50 and no signs active MAC	CD4 > 50
Influenza A + B	Influenza vaccine	All HIV patients	
Streptococcus pneumonia	Pneumococcal infections	All HIV patients, then repeat depending on CD4 count	

Table B – Infections in HIV

Class	Agent	Condition	Treatment
Bacterial	*Mycobacterium tuberculosis*	TB	Anti-TB medication
	Mycobacterium avium complex	Respiratory illness	Azithromycin + ethambutol
	Salmonella	Diarrhoea	Ciprofloxacin
Viral	*CMV*	Retinitis CNS disease	Gangciclovir
	EBV	Non-Hodgkin's lymphoma	CHOP ART
	Herpes zoster	Shingles	Aciclovir
	Hepatitis B	Hepatitis, cirrhosis	ART containing tenofovir and lamivudine (active against HBV)
	JC virus	Progressive multifocal	ART

		leucoencephalopathy (PML)	
	Human herpes virus 8	Kaposi's sarcoma	ART
Fungal	*Crytococcus neoformans*	Cryptococcal meningitis	Amphotericin B + flucytosine → fluconazole maintenance
	Candida albicans	Candida (oral, oesophageal, vaginal)	Nystatin Fluconazole
	Histoplasmosis	Rash, respiratory illness	Amphotericin
	Pneumocystis jiroveci	Pneumonia	Co-trimoxazole
Parasitic	*Toxplasma gondii*	Cerebral Toxoplasmosis	Pyrimethamine + sulphadiazine + folinic acid
	Cryptosporidium	Diarrhoea	Start ART

References:

BHIVA guidelines: http://www.bhiva.org/guidelines.aspx

Oxford handbook of tropical medicine pages 69-150

https://www.uptodate.com/contents/overview-of-prevention-of-opportunistic-infections-in-hiv-infected-patients