# 83a Special Populations: HIV and AIDS

#### 83a Special Populations: HIV and AIDS Class Outline

| 5 minutes  | Attendance, Breath of Arrival, and Reminders |
|------------|--|
| 45 minutes | Lecture: Special Pops                        |
| 10 minutes | Class discussion                             |
| 60 minutes | Total  |

#### 83a Special Populations: HIV and AIDS Class Reminders

- Quizzes:
  - 84a Kinesiology Quiz (pectoralis major, pectoralis minor, coracobrachialis, biceps brachii, sternocleidomastoid, and scalenes)
  - 87a Kinesiology Quiz (semispinalis, splenius capitis, and splenius cervicis)
- Spot Checks:
  - 84b Orthopedic Massage: Spot Check Thoracic Outlet Bring your grading sheet A: 103
  - 87b Orthopedic Massage: Touch Assessment Bring your grading sheet for evaluation A: 87
- Assignments:
  - 85a Orthopedic Massage: Outside Massages (2 due at the start of class)
- Preparation for upcoming classes:
  - 84a MBLEx Prep
    - Using ABMP Exam Coach, select "Study Subjects", and then "Pathology"
    - For each of the Topics "Basics", "Meds", and "Integumentary System:, "Take a Practice Quiz" 4 times (12 total)
    - Research anything that isn't clear on the Internet and bring what you find to class
  - 84b Orthopedic Massage: Spot Check Thoracic Outlet
    - Packet J: 107-108.

#### **Classroom Rules**

#### **Punctuality** - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

#### The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.

#### 83a Special Populations: HIV and AIDS K-19



#### HIV/AIDS

Infection with human immunodeficency virus (HIV) and acquired immunodeficency syndrome (AIDS) is a pandemic that has affected millions of people globally.

Although major research and clinical initiatives are addressing prevention and cure strategies, issues of quality of life for survivors have received less attention.

Massage therapy is proposed to have a positive effect on quality of life and may also have a positive effect on immune function through stress mediation.



#### HIV/AIDS explained

HIV is a retrovirus that attacks the body's immune system. This virus attacks white blood cells.

As the virus takes over white blood cells, immunity weakens.

A normal white blood cell count within the body ranges from 4,500 to 11,000 white blood cells per microliter of blood; however, this number begins dropping significantly upon HIV's manifestation within the body.



#### HIV/AIDS explained

AIDS is the final stage of HIV progression. At this point, one's white blood cell count will drop below 200 white blood cells per microliter of blood.

The body's immune system has weakened to a point in which a simple pathogen a healthy individual can easily fend off can likely kill an AIDS patient.

An important note to mention is that other conditions such as anemia, autoimmune disease and cancer can also create a significant decline in white blood cells within the blood stream.



#### HIV/AIDS transmission

The top method of transmitting this virus is unprotected sex.

Other methods of transmission include passing the infection from pregnant people to fetus; contaminated needles; blood transfusions; or direct contact with open, bleeding lesions present on both parties.

Epithelial linings on both parties must have damage upon them for virus to spread.



#### HIV/AIDS Antiretroviral Syndrome

Upon initial exposure, a patient acquiring HIV may suffer from ARS, "Antiretroviral Syndrome," within two to four weeks.

Patients commonly describe this as "the worst flu ever," as the body is trying to combat the HIV infection.

Common symptoms include high-grade fever, swollen glands, sore throat, rash, fatigue, headaches and muscle pain.

Common Antiretroviral Treatment (ART) options can limit the effects of HIV within the body. These treatments can extend the life span of HIV patients.



#### HIV/AIDS ART treatments

The first ART treatments were conducted in 1994. Since then, an HIV patient can have the same life expectancy as the non-HIV population.

Today there are 25 FDA-approved ART treatment medications. Common side effects include nausea, vomiting, headaches, bowel issues, muscle atrophy, neuropathy, digestive issues and joint pain.

"Individuals living with HIV and AIDS have many obstacles to overcome beyond their physical challenges," said Jennifer Sanders, a Polarity Therapy practitioner in Tempe, Arizona. "They live with a disease that carries an intense stigma nourished by fear, leading to increased levels of isolation and depression."



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In 2018, 37,968 people received an HIV diagnosis in the United States and dependent areas. The annual number of new diagnoses decreased 7% from 2014 to 2018.



How many people have HIV in the United States?



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An estimated 1.2 million people in the United States and 6 dependant areas had HIV at the end of 2018, the most recent year for which this information is available. Of those people, about 14%, or 1 in 7, did not know they had HIV.



#### HIV/AIDS

Today, as society moves past archaic myths and misconceptions, greater gains are made in the HIV/AIDS community in terms of research, treatments and longevity for HIV/AIDS patients. This includes the area of massage therapy.



#### Touch for HIV/AIDS patients

There are important considerations for the HIV/AIDS patient. Ensure you conduct a thorough client history, as the condition of this client can change easily and frequently. There may be a need to reschedule appointments often.

Refrain from using direct pressure upon areas presenting with open lesions and inflammation. Keeping nails short will be imperative to not transfer pathogens or scratch the epithelial skin lining.



#### Touch for HIV/AIDS patients

The usage of gloves may or may not be appropriate for the HIV/AIDS patient. Many therapists insist on using gloves for fear of spreading an infectious agent during session. This practice creates a barrier both physically and mentally for the patient.

The level of trust and comfort can decrease as fear enters the room, taking away from the healing nature of the session. It is not recommended to use gloves in session unless there are open lesions present upon either client or therapist. This is a standard used for any client, not merely the HIV/AIDS patient.

#### Benefits of Massage for HIV/AIDS Patients

Among the goals that can be achieved for the HIV/AIDS patient include facilitating the removal of excess phlegm to relieve respiratory congestion, increasing blood and lymph flow to assist in metabolic waste removal and blood cell regeneration, preventing muscular atrophy due to inactivity, reducing postsurgical scar tissue and boosting the immune system.

Consider how taxing the massage may potentially be for the client. A lighter relaxing touch may be necessary for patients suffering the ill effects of chronic stress and anxiety.

Relieving pain may become a major component of each session; yet remember that deeper modalities can tax the body's systems, taking the patient days to recover.



#### Additional info about PrEP

The following information may not be included in your packet.



## PrEP (Pre-exposure prophylaxis)

Visit: https://prepfacts.org for more information!

It is a new HIV prevention approach where HIV-negative individuals use anti-HIV medications to reduce their risk of becoming infected if the are exposed to the virus. It is an additional tool for people to consider in the HIV prevention toolbox.

Pre= before Exposure= coming into contact with HIV Prophylaxis= treatment to prevent an infection from happening

The medications work to prevent HIV from establishing infection inside the body.

It does not protect against other sexually transmitted infections (STI) or pregnancy. It is not a cure for HIV.



## PrEP (Pre-exposure prophylaxis)

Medications approved for PrEP: Truvada (also called FTC/TDF)

Approved by US FDA in 2012. This medication is taken as a once-daily oral pill, which combines two medicines in one: Emtriva (also called emtricitabine or FTC) and Viread (also called tenofovir disoproxil fumarate or TDF).

Truvada works by blocking an enzyme called HIV reverse transcriptase. By blocking this enzyme, it prevents HIV from making more copies of itself in the body.

There are 4 other medications currently being studied for PrEP!



## PrEP (Pre-exposure prophylaxis) Effectiveness

PrEP is highly effective for preventing HIV.

PrEP reaches maximum protection from HIV between 7 and 21 days of daily use. PrEP reduces the risk of getting HIV from sex by about 99% when taken as prescribed.

Although there is less information about how effective PrEP is among people who inject drugs, we do know that PrEP reduces the risk of getting HIV by at least 74% when taken as prescribed.

PrEP is much less effective when it is not taken as prescribed.

### PrEP (Pre-exposure prophylaxis) Side Effects

It is generally safe, but like all medication, it can have side effects in some people. A recent review looked at over 10,000 people who took the medication as PrEP. Their results were compared to over 7,000 people who took a placebo.

Some of the side effects are usually experienced during the first few weeks of taking the drug only. These include nausea, tiredness, gastrointestinal symptoms, and headache. Nausea, vomiting, and other GI problems were reported by 3.8% who took PrEP and by 2.6% who took the placebo.

Occasionally, it can affect the kidneys or bone. Kidneys problems occurred in 2.4% who took PrEP and by 2.0% who took the placebo. A broken bone was reported by 1.7% who took PrEP and by 2=1.8% who took the placebo.

The figures show that only a small number of people taking PrEP had problems and the fact that the people taking a placebo also reported problems shows that not all of them were true side effects of Truvada as PrEP.

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