Patient population
HIV/AIDS patients are not a homogeneous group. For clinical purposes it is imperative to stratify them into two groups (Table I). Patients with HIV infection only (A1, B1, A2, B2) have a lower operative risk and are less contagious. Patients with AIDS (C1, C2, C3, A3, B3) are more prone to operative complications and are more contagious.

Pathology
Pathology occurring in HIV/AIDS patients can be classified into two groups: diseases with a definitive association with HIV and coincidental diseases. As for the first group, new and unheard diseases have come to the forefront. Thirty years ago diseases such as disintegrating perineum syndrome and diffuse infiltrative lymphocytosis syndrome (DILS), to name but a few, were unheard of. Strategies to diagnose and treat these conditions had to be devised. The second group of patients are those with HIV/AIDS who develop the ‘normal’ type of pathologies as are seen in the general population.

Patients with HIV infection only have a lower operative risk and are less contagious.

Surgical treatment
When planning surgical treatment for HIV/AIDS patients, the physician should take the following issues into account:
• informed consent
• operative risk in HIV/AIDS patients
• occupational risk to the health care workers
• universal and specific precautions
• variations in operative technique
• ethics.

Informed consent
When a doctor proposes a surgical intervention, informed consent is an absolute necessity. Three new aspects have arisen during the course of the HIV pandemic.

Firstly, HIV/AIDS patients fear social recognition and rejection and frequently request doctors to perform unnecessary surgery such as removal of ‘tell-tale’ cervical lymph nodes or parotidectomy for DILS.

The second aspect of informed consent pertains to the management of terminal HIV/AIDS patients. Some patients (and their families) refuse surgery in desperate situations (such as bowel perforation) as they want to operative complications and are more contagious.

Thirdly, it should be emphasised to AIDS patients that they are more prone to perioperative complications.

Operative risk in HIV/AIDS patients
The risk of surgery for an HIV-positive patient is determined in much the same way as that for an HIV-negative patient. The preoperative physiological status, i.e. a functionality score, is the most accurate predictor of postoperative outcome. As always, when calculating the risk for operative morbidity and mortality, the surgeon considers two aspects: the pathophysiological state of the patient versus the magnitude of the procedure. Patients with early HIV infection have an operative risk almost equal to HIV-negative patients and can therefore be subjected to any major surgery that is required. The pathophysiological consequences of advanced disease (e.g. immunosuppression, malnutrition, infections and neoplasms) could dictate that the magnitude of the surgery be scaled down to an acceptable and safe level.

Four factors have been found to increase operative morbidity and mortality in HIV/AIDS patients:
• a compromised physiological state – the best predictors of perioperative morbidity and mortality appear to be scores that measure general health such as ASA (American Society of Anesthesiology) risk classes
• physiologically demanding surgery
• emergency surgery as opposed to elective procedures
• operations in contaminated fields, e.g. anorectum or oral cavity.

Studies of the value of viral loads and CD4 counts (alone or in combination) in predicting operative morbidity and mortality did not produce conclusive results. These tests are not ideal for everyday practical use.

Patients with early HIV infection have an operative risk almost equal to HIV-negative patients and can therefore be subjected to any major surgery that is required.

Occupational risk to the health care workers
The good news is that the initial perceived threat concerning occupational transmission of HIV was less than anticipated. Although all exposure to contaminated bodily fluid carries a risk, the risk of HIV transmission increases particularly in the following circumstances: if the penetrating needle-stick injury occurred with a hollow as opposed to a solid needle, if the needle injury was a deep soft-tissue penetration, if there was visible blood on the needle, if the patient is in the early viremia stage or the
The consensus opinion is that in the first instance surgical intervention is obligatory. In the second instance, alternatives to surgery can be contemplated.

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References available at www.cmej.org.za

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- In dealing with HIV/AIDS patients, the physician should not regard them as a homogeneous group.
- Pathology occurring in HIV/AIDS patients can be classified into two groups: diseases with a definitive association with HIV and co-incidental diseases.
- Patients with early HIV infection have a perioperative risk almost equal to HIV-negative patients.
- The best predictors of perioperative morbidity and mortality are scores that measure general health such as ASA (American Society of Anesthesiology) risk classes.
- The good news is that yesterday's dreaded threat concerning occupational transmission of HIV fortunately came to pass without much impact.
- Postponing elective operations with the aim of starting the patient on antiretroviral medication should be encouraged.
- All bodily fluids of all patients should be regarded as hazardous substances.
- Simple techniques to reduce the occupational hazards should be encouraged and practised.
- The consensus opinion is that in patients with life-threatening surgical correctable disease surgical intervention is obligatory.