pulse oximetry first since it is a noninvasive office procedure. If resting or, more likely, exercise hypoxemia occurs (Sao₂ < 90%), further evaluation is indicated. If the results of oximetry are equivocal (i.e., O₂ saturation 90% to 94%, or <3% decline in Sao₂ from rest or previous baseline measurements) or felt to be inconsistent with clinical assessment, arterial blood gas values and DLco could then be determined to confirm or clarify the oximetry results.

If the results of spirometry, DLco, and oximetry all fail to show any significant changes from baseline, focal or extrapulmonary disease may still be present and additional studies, particularly chest radiography, may also be indicated. The frequency of repeat studies is dictated by the severity of the disease.

The value of spirometry, DLco, and exercise oximetry done at regular intervals in the severely immunosuppressed patient, even without changes in respiratory symptoms, in order to detect disease before symptoms develop is a question currently under prospective study in the AIDS and other immunosuppressed populations.

Glossary

A-aO₂  Alveolar-arterial oxygen difference
DLco  Diffusing capacity
Dm  Alveocapillary membrane
FEV₁  Forced expiratory volume in one second
Fio₂  Fraction of inspired oxygen (%)
FVC  Forced vital capacity
Pa-aO₂  Partial pressure of alveolar arterial oxygen difference
PACO₂  Partial pressure of alveolar carbon dioxide (mmHg)
Paco₂  Partial pressure of arterial carbon dioxide (mmHg)
PaO₂  Partial pressure of arterial oxygen (mmHg)
PFT  Pulmonary function tests
RQ  Respiratory quotient
RV  Residual volume
Sao₂  Oxygen saturation
SVC  Slow vital capacity
TLC  Total lung capacity
VA  Alveolar volume
VC  Vital capacity
Vc  Capillary bed
VeCO₂  CO₂ production
Ve  Wasted ventilation
Vo₂  Oxygen consumption

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