

**Prevention of Infection**

**Definition List**

Term	Definition
<b>Air changes per hour</b>	The ratio of the volume of air flowing through a space in a certain period of time (the airflow rate) to the volume of that space (the room volume); this ratio is expressed as the number of air changes per hour.( Schulster & Chinn, 2003)
<b>High-efficiency particulate air (HEPA) filter</b>	HEPA filters are capable of removing 99.97% of particles 0.3 µm in diameter and may assist in controlling the transmission of airborne disease agents. The filters may be used in ventilation systems to remove particles from the air or in a personal respirator to filter air before the person wearing the respirator inhales. The use of HEPA filters in ventilation systems requires expertise in installation and maintenance. To test this type of filter, 0.3 µm particles of dioctylphthalate are drawn through the filter. Efficiency is calculated by comparing the downstream and upstream particle counts. The optimal HEPA filter allows only three particles to pass through for every 10,000 particles that are fed to the filter. (Schulster & Chinn, 2003)
<b>High-risk, immunocompromised patients</b>	Patients who are severely neutropenic for prolonged periods of time (i.e., an absolute neutrophil count of < 500 cells/ml), allogeneic hematopoietic stem cell transplant recipients, and patients who have received intensive chemotherapy (e.g., children with acute myelogenous leukemia)( Schulster & Chinn, 2003)
<b>Immunocompromised patients</b>	Patients whose immune mechanisms are deficient because of immunologic disorders (e.g., HIV infection; congenital immune deficiency syndrome; chronic diseases such as diabetes, cancer, emphysema, and cardiac failure) or immunosuppressive therapy (e.g., radiation, cytotoxic chemotherapy, antirejection medication, steroids)( Schulster & Chinn, 2003)
<b>Negative pressure</b>	Air pressure differential between two adjacent airspaces such that airflow is directed into the room relative to the corridor ventilation (i.e., room air is prevented from flowing out of the room and into adjacent areas)( Schulster & Chinn, 2003)
<b>Positive pressure</b>	Air pressure differential between two adjacent airspaces such that airflow is directed from the room relative to the corridor ventilation (i.e., air from corridors and adjacent areas is prevented from entering the room)( Schulster & Chinn, 2003)



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<b>Protective environment</b>	Specialized patient care area, usually in a hospital that can safely accommodate patients who have undergone allogeneic hematopoietic stem cell transplantation. ( Sehulster & Chinn, 2003)