

ATP BIOLUMINESCENCE TESTING: FREQUENTLY ASKED QUESTIONS

What is ATP?

- Adenosine Triphosphate (ATP) is an organic molecule that is used by living cells as the main source of energy.
- Animal, plant, bacterial, yeast and mold cells produce and break down ATP in order to drive a number of biological processes.
- The presence of ATP on a surface indicates that the surface has protein present and may not have been adequately cleaned and disinfected and has the potential to harbor and support bacterial growth.
- ATP is one of several tools to assess hospital cleanliness.
- ATP results from high touch surfaces (e.g. buttons, handles, door knobs), can serve as reminders to perform hand hygiene.

When is ATP Testing Performed?

- The Infection Preventionist performs ATP testing monthly on surfaces and equipment throughout the unit and again whenever there are high numbers of transmissions, clusters or outbreaks of disease such as MRSA, *C. difficile*, *Candida auris*, Carbapenemase-Producing Organisms (CPO), Influenza/Influenza-Like-Illness, Norovirus, etc.
The Regional Hand Hygiene Coordinator will also perform ATP audits in conjunction with HH audits.

How is this information helpful?

- Reviewing test results in 'real time' may help staff recognize potential common reservoirs of infection.
- Reviewing ATP test results may help staff identify which items are not being thoroughly cleaned and disinfected effectively and/or on a regular basis.

What are the limitations of this test?

- ATP testing does not detect viruses, and does not detect bacterial spores consistently.
- ATP testing cannot determine sterility and is not a substitute for traditional microbiologic analysis.
- Despite these limitations, it is a very valuable test that provides real-time results on the overall cleanliness of high touch surfaces, and help focus our cleaning and disinfection efforts.

What Can I Do?

- Ensure you are ***cleaning & disinfecting*** patient equipment after each use and between different patients. Cleaning and disinfection is a two-step process using the same product. Use as many cleaning and disinfecting wipes as needed. Economy of wipes should never be an issue as infections are much more costly to patients and the healthcare system. Keep wipe containers closed to prevent the product from drying out which renders it ineffective for cleaning and disinfection.

Cleaning & Disinfecting Process:

STEP 1:

Clean equipment/surfaces/rooms using a new wipe(s) or cloth(s) using friction and a rub/scrub motion, to remove any foreign matter (e.g. dust, soil, food, feces, blood, sputum) and then immediately go to step 2.

STEP 2:

Disinfect all equipment/surfaces/rooms using friction and a rub/scrub motion with another new wipe(s) or cloth(s). To complete the disinfection process, items must be wet enough to maintain the product label stated '***wet contact***' or '***dwelling time***' (e.g. stays wet for 1 minute (AHP) or 3 minutes (Ultra Swipes Plus) according to manufacturer instructions). **Allow item to air-dry to complete disinfection process. Do NOT wipe equipment or surfaces dry.**

References:

1. VCH Master Equipment Cleaning and Disinfecting Manual
<http://ipac.vch.ca/Documents/Cleaning%20and%20Disinfection/VCH%200291.pdf>
2. Hygiene LLC 2012