

### WHY THE USA USES DISPOSABLE ANESTHESIA BREATHING CIRCUITS

A little history as to how the US came to use disposable Anesthesia Breathing Circuits (dABCs) is helpful in the decision to use circuitGuard™.

#### Patient Charge Items

dABCs came into use when hospitals charged patients for most items consumed by a patient during their stay. This led to pricing of >\$5.00 for a simple aspirin tablet. A dABC was typically marked up >6 times the acquisition cost.

#### Diagnosis Related Groups (DRGs)

DRGs changed that process. However, anesthesia providers liked the light weight and ease of use of the dABC. As a result, hospitals were persuaded that the dABC was necessary as an infection control item. To the best of our knowledge, there has never been a study that shows that dABCs reduce or prevent cross-contamination. Common sense says that if you throw away the connecting tubing between the patient and the machine that the patient will be protected (but not the machine or anesthesia provider), but there is no study that proves this.

#### Decision Process Outside the USA

Outside the US, the issue of patient charge items never surfaced. As a result, the decision making process was different. Bacterial / viral filters of many kinds were available and use of a filter at the wye became common practice. Again, common sense says that if you protect the circuit from contamination, then the patient, circuit, machine, and anesthesia provider are protected. In order for a cross-contamination to occur, the organism would have to typically transfer through two filters - one to get into the circuit and then through a second filter on the next patient. The odds of an inoculum passing through two filters are enormous.

#### Why circuitGuard™ is Different

circuitGuard™ has an exclusive "unitized" construction. We use no glue or ultrasonic welding during manufacturing resulting in no failure points in our design. The three components (two halves and filter media) are designed so that during manufacturing a friction fit is accomplished. If any of the three components is misaligned, the unit is rejected.

In > 56,000,000 uses of our devices in N. America, Europe and Asia, there has never been a cross-contamination reported to ARC, the manufacturer, or to any regulatory agency.

It is also true that there has never been a cross-contamination reported to any regulatory agency in any country where a dABC has been used and discarded after one patient.

The results are the same.