Injectable drug delivery via a plastic infusion bag was first introduced to the market in the 1960s. This mode of injection, still predominantly used in hospitals but also increasingly in the homecare market, has associated with it a series of questions and concerns. These concerns, which are a high priority in the hospital sector worldwide, relate to:

- Compliance to drug prescription
- Patient safety
- Medical professionals safety
- Environmental issues and related costs

For patients, there is concern around the use of infusion bags and their potential contribution to nosocomial contamination risk. For healthcare workers, in addition to the risk of infection that patients face, there is the risk of exposure to toxic or allergic drugs when connecting and disconnecting the line. Another concern is the environmental impact of the waste drugs and medical supplies generated by infusion bags, and the associated financial cost of managing that waste.

There is also a crucial question hanging over the actual dose that is administered to the patient from an infusion bag and compliance to the prescription. In June 2008, an important study conducted by the Intensive Care & Anaesthesia Department of Edouard-Herriot Hospital (Lyon, France) revealed that, with a bag capacity of either 50ml or 100ml, on average, 20% of the formulation stays in the connecting line when flushing is not performed. This may clearly have the effect of underdosing the patient, and result in suboptimal treatment efficacy or even ineffective treatment, with the inevitable serious adverse effects.

At its facilities in Lyon, France, Laboratoire Aguettant has designed a new infusion bag system that provides safer drug delivery, and improves compliance by automatically flushing the connecting line without any medical staff intervention.
The AGUETTANT® Self-Flushing Infusion Bag, which was patented worldwide in 2005, transforms the flushing procedure from an active process to a passive process.

This infusion bag system can be adapted to fit different drug- and flushing-volume requirements and will accept several types of connections, including but not limited to the standard Luer Lock connector, which enables a needle-free system.

THE KEY BENEFITS ARE:

• Protect staff against drug exposure
• Improve compliance to the prescribed dose by delivering the whole drug quantity to the patient with no loss in the connecting line
• Reduce the risk of nosocomial infections by eliminating the manipulations for flushing preparation and performance
• Reduce waste drugs and medical supplies and consequent cost and environmental impact compared with manual flushing a traditional infusion bag
• Save time of preparation for the medical staff with its intuitive use

Figure 1: Step-wise depiction of the AGUETTANT® Self Flushing Infusion Bag use (dual chamber)
“THE TRIPLE CHAMBER VERSION OF THE INFUSION BAG PROVIDES AN ADDITIONAL KEY FEATURE, WHICH IS TO GUARANTEE PROTECTION OF MEDICAL STAFF AGAINST ANY DRUG EXPOSURE RISKS BY SYTEMATICALLY PRE- AND POST-FLUSHING, AND BY VIRTUE OF IT BEING A CLOSED SYSTEM”

AGUETTANT® SELF FLUSHING INFUSION BAG (DUAL CHAMBER):

Two versions of the self-flushing soft bag are available. The first version – Aguettant® Self Flushing Infusion Bag – with a dual chamber performs a POST flushing. The instructions for use are shown in Figure 1.

AGUETTANT® SELF-FLUSHING INFUSION BAG PLUS (TRIPLE CHAMBER):

The second version – Aguettant® Self Flushing Infusion Bag PLUS – has a triple chamber for a PRE and a POST flushing. This is outlined in Figure 2.

The triple chamber version of the infusion bag provides an additional key feature, which is to guarantee protection of medical staff against any drug exposure risks by systematically pre- and post-flushing, and by virtue of it being a closed system. Exposure to toxic drug products is a real issue for healthcare workers, especially, as an example, in the area of oncology. It can also be relevant to high-value biological products such as cell therapy and blood components to limit drug loss in the line.

Laboratoire Aguettant has already entered into an exclusive licensing agreement with one of the largest US pharmaceutical companies to market the Self-Flushing Infusion Bag in association with a range of products in Europe. This collaboration could be soon extended to the United States and the rest of the world.

Aguettant is looking to establish partnerships with clients that want to offer more safety, security and compliance with the prescribed doses through this innovative delivery system, a device that can fit well into the lifecycle management of existing drugs products.

The AGUETTANT® Self-Flushing Infusion Bag, is part of the Aguettant SYSTEM® portfolio, a new label providing a guarantee of quality design and innovative technology.

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SOME SKILLS ARE ESSENTIAL
SOME PRODUCTS ARE WELL