

## **How the GMDN and bar codes fit together to help hospitals, medical studies and patient safety**

We all know about the bar codes on the packaging of items we buy in supermarkets and online. Bar codes also appear on packets of medicine but, surprisingly to many, they are only starting to appear on medical devices.

The GMDN Agency works closely with the bar code industry and medical device manufacturers. The GMDN and bar codes each have different and complimentary roles, and this article sets out the important differences.

Bar code numbers are individual to each product from each manufacturer and often also contain additional information, such as the batch number or expiry date. They are really useful for managing your stock level of individual items, whether it is baked beans or syringes.

Putting aside the odd problem at the self-service checkout, they are a powerful aid to helping retailers know exactly what they have in stock, planning future demand and knowing when extra supplies need to be ordered.

The use of bar codes on products is especially helpful when you need to find a batch that might need to be returned to the manufacturer or has exceeded its expiry date.

For instance, supermarkets use this to instantly remove specific packs of food that have been identified by the manufacturer as having a safety issue.

Hospitals are starting to make use of this technology to help them better manage their supplies and capital equipment.

Further examples of how bar codes can bring dramatic healthcare benefits include the use of bar-coded wrist bands to improve the identification of patients, enabling the reduction of errors in their care. For instance, the medical implants used to treat a patient can be scanned before an operation and linked to a specific patient, and thereafter easier to monitor after the operation.

But bar codes are not so useful when you need to compare similar devices made by different companies as their codes will invariably be very different. Remember, the bar code relates just to the specific product from one manufacturer.

Because of the need for a standardised system for naming and grouping, The Global Medical Device Nomenclature (GMDN) international categorisation of medical devices was created by those responsible for medical device safety.

This categorisation system is important for several reasons, ranging from improving hospital efficiency and patient protection to helping long-term medical studies to find out which devices are most effective.

For instance, at a basic level a hospital may well want to know how many 50ml syringes or bedside scanners it has. The GMDN enables them to quickly answer

this as it helps hospitals measure and control inventories where they have similar devices by different manufacturers.

The GMDN can also be used to improve efficiency. For instance, it allows for easy comparison where an improved or more cost-effective device comes on the market while older versions are still in use – whether it is beds, operating tables, syringe pumps or respirators.

Another example of how the GMDN is used is in long-term medical studies, which often need to compare the use of similar medical devices from a range of providers. The GMDN groups medical devices which have the same use, which is also vital when we discover the problem with a medical device is not limited to one manufacturer, but may also be shared by other products that use the same technology or materials.

A good example of this is “metal on metal” hip joints which were found to cause problems and were produced by several different manufacturers. The GMDN would enable this ‘systematic’ problem to be identified early, whereas the bar code is only useful for identifying an issue with a specific device from one manufacturer.

The GMDN can be used to identify all the different products in the market which might have the same problem, so hospitals can quickly be alerted to remove the faulty products, thereby reducing risks to patients.

The GMDN Agency is a charity that works closely with manufacturers to make sure the GMDN represents all medical device products on the market, and to make sure it’s always up-to-date with the latest innovations. It provides the GMDN to hospitals, helping them improve their bar code systems for managing the products they use – thereby supporting patient safety.