



Innovation & New Product Development in Medical Nutrition



Claire James BSc RD, Head of Nutrition and Regulatory Affairs, AYMES International Ltd & Emily Wong MSc ANutr, Medical Affairs Reimbursement Manager, Nutricia, on behalf of the BSNA

The phrase *'necessity is the mother of all invention'* has completely underpinned the development of medical nutrition products over the last 50+ years. With the increasing recognition of nutrition being a crucial and absolutely necessary part of patient care, the medical nutrition industry has led the way in innovating and producing patient-focused solutions to enhance nutritional care across a range of therapy areas. Dietitians and other healthcare professionals often only see the end result and not the complexity and process driven approach that is involved in the development of new medical nutrition products. This article explores the process and challenges that are involved in developing new medical nutrition products to enhance patient care.

What's the problem?

New product development often starts with trying to find a solution to an issue or a problem. This could be trying to develop a more palatable life-saving protein substitute for a complex condition, such as phenylketonuria (PKU), or a more convenient format of an oral nutritional supplement that is easier for patients to consume with the aim of improving compliance. Understanding the problem that needs to be solved is the very starting point of the new product development process. In the field of medical nutrition, this may also be informed by emerging research, for example, on the benefits of a new ingredient in a particular new therapy area or patient group.

Horizon scanning is also important as trends in consumer food manufacture and changing consumer habits may have a knock-on effect to the needs of patients. For example, the rise in consumer vegan and plant-based diets has created increased interest in medical nutrition products suitable for vegans.

Once a concept has been formalised, many medical nutrition companies will engage with customers using a focus

group approach, bringing together relevant healthcare professionals to give honest and open feedback on new concepts. These are often facilitated by an independent market researcher to moderate the response and reduce the risk of bias in the process. For some concepts, this may involve groups of international experts as new product development may be focused on patient needs in other countries, not just the UK. Patient organisations or patient support groups may also be consulted.

Multidisciplinary process driven approach

Comparable with achieving the best patient care for complex conditions, successful product development requires a multidisciplinary approach, bringing together the unique skills of a range of professionals (see **Figure 1**). For example, concept development often starts in the medical marketing team alongside input from medical affairs/research teams and regulatory teams. Engagement with new product development teams within the factory is also a key stage of early development.

