

## **Value proposition for using METS\_iQ as a companion technology for GLP1 Therapeutics**

MHS's METS\_iQ metabolic testing technology, primarily through its accurate measurement of Resting Metabolic Rate (RMR) and Respiratory Quotient (RQ) and metabolic efficiency via ECAL, functions as an indispensable companion product for GLP-1 Receptor Agonist (GLP-1 RA) therapies. It enhances weight management and patient outcomes by providing precise, objective metabolic data that moves beyond inaccurate estimations, enabling highly tailored interventions and improved treatment efficacy. This should appeal to commissioners and payer groups by ensuring more effective and cost-efficient treatment pathways.

### **For the Provider**

METS\_iQ provides a clinically validated, scalable solution for the provider to address the significant public health crisis and economic burden of obesity. As a companion product to high-cost GLP-1 RAs, METS\_iQ offers precise metabolic insights that enable health care systems to:

**Optimise High-Cost GLP-1 RA Therapy:** By accurately measuring individual RMR and RQ, METS\_iQ ensures that the significant investment in GLP-1 RAs maximises fat loss and preserves crucial lean body mass (LBM), which can otherwise be disproportionately lost with these medications (20-50% of total weight reduction). This moves beyond generic dietary advice to precisely tailored nutritional and exercise plans, ensuring the drug works optimally for each patient.

**Combat Metabolic Adaptation and Weight Regain:** Routine RMR measurement proactively detects metabolic slowdown and adaptation, allowing timely adjustments to diet and activity. This is critical for sustaining the costly benefits of GLP-1 RA therapy long-term and preventing plateaus and weight regain, reducing the need for repeat or escalated interventions.

**Facilitate Cost Savings and Outcomes-Based Reimbursement:** By providing objective, quantifiable metabolic data, METS\_iQ helps identify early non-responders, allowing for better allocation of resources and reducing long-term treatment costs associated with obesity and its comorbidities. This should align with public health goals to ensure value for money from high-cost therapies and supports outcome-based contracts.

**Enhance Clinical Efficiency and Patient Adherence:** The fast, 5-minute ECAL test integrates into efficient clinical workflows, providing expert decision support and secure data management. Objective patient feedback on their metabolic response boosts motivation and adherence, leading to better long-term success. Studies show that when measured results were known, weight change was almost 2.5 times greater, and over 5 times as many patients achieved a 5% body weight reduction compared to a control group.

**ECAL and METS\_iQ in UK Bariatric program:** METS\_iQ protocols are currently being used within the largest NHS bariatric service and as part of the new Tier 3 outreach program. The evidence generated here will validate the currently utility and workflow and will support wider adoption within the UK.

## **For European Regulators**

As European countries invest in the development and validation of innovative medical diagnostics to support personalised medicine, METS\_iQ, a CE-certified metabolic testing platform, provides essential, objective metabolic insights (RMR, RQ) that enhance the safe and effective use of GLP-1 RA therapies. It acts as a companion diagnostic to:

**Optimize Therapeutic Decisions and Patient Stratification:** METS\_iQ provides information essential for the safe and effective use of corresponding medicinal products, enabling clinicians to identify patients most likely to benefit from GLP-1 RA therapy and precisely adjust prescriptions based on their unique metabolic profile.

**Monitor Treatment Efficacy and Mitigate Adverse Effects:** By continuously monitoring metabolic changes, METS\_iQ helps identify patients at increased risk for serious side effects like disproportionate lean body mass loss and allows for the proactive management of metabolic adaptation. This ensures treatment adjustments can be made to achieve improved safety and effectiveness.

**Facilitate Reimbursement and Value-Based Care:** METS\_iQ generates quantifiable, objective data that demonstrates the clinical effectiveness and value of GLP-1 RA treatments. This supports the evolving regulatory environment in Europe for in vitro and companion diagnostics, potentially accelerating reimbursement decisions and aligning with national efforts, such as France's Health Innovation 2030 plan, to integrate innovative diagnostics into day-to-day care.

**Promote Metabolic Flexibility and Sustainable Outcomes:** By providing insights into substrate utilisation (RQ), METS\_iQ confirms beneficial metabolic shifts towards fat oxidation. This empowers clinicians to fine-tune dietary recommendations, leading to healthier and more sustainable weight loss, thereby enhancing long-term patient outcomes.

METS\_iQ, through its data-driven approach, helps bridge the gap in current clinical guidelines for GLP-1 RA therapy, moving towards precision medicine in obesity management.