



BUYING MEDICAL DEVICES?



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Introduction

•Carbohydrates malabsorption and Small Intestinal Bacterial Overgrowth (SIBO) cause digestive symptoms that can affect patients' quality of life.

The hydrogen breath test is the most widely used diagnostic method.

•Anaerobic bacteria colonizing the large intestine, or the small one in pathologic situations, product hydrogen by fermentation of non-absorbed carbohydrates which can be measured in breath.

- The lack of standardization of measurement and interpretation of this test can lead to misclassification.
- **Purpose :** To assess breath tests procedures used in our establishment to identify possible problems and improve practices.

Material and methods

•Inventory of breath test practices (in red in the text = done in our hospital) in our gastro-enterology department •Comparaison with literature data (Pubmed : "breath test", "carbohydrates malabsorption", "SIBO", since 2004) •Comparaison with recommendations made by manufacturers on the French market.

Results

Determination of the basal value: average of 3 or 4 tests in fast state. dose : If H₂ concentration > 10 ppm : the patient sugar to should be asked to be tested

Overhead 20 ppm of H_2 , the intolerance of the tested sugar is displayed

Repeted measure of exhale air. The



Why ? Possible delayed excretion of H ₂ in the exhale air	and may distort results.	due to buccal bacteria on sugar tested	F	Reflection of the mass of bacteria and	Its stable value controls	Useful for the « non H ₂ - producers » (10% of the
<u>The weeks before:</u> No colonoscopy or other intestinal examinations needing prior 'bowel cleaning' <i>Why ? The intestinal flora needs up 4 weeks to recover.</i>			8	the bacterial metabolic activity in the intestine	the breathing out quality	population has a special bacterial species)

Conclusion & action

>To do a protocol for physicians with lifestyle advices (before exam and measurement rules) to improve quality of breath tests.

 \succ To buy a medical device to measure hydrogen, CO₂ and CH₄.

To relocate the analysis in the Biology department: to **standardize** measurement of gas, calibration and maintenance. The interpretation remains made by gastro-enterologists (diagnosis precision). >To open accessibility to town doctors (diagnosis development).