

Complete submission form		GASTRO UPDATE EUROPE
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Abstract Topic	Lactose intolerance	
Abstract Title	<i>LacLI</i>	<i>Lactose malabsorption by third generation hydrogen breath test : new data collection and time implementation</i>
	<i>new</i>	
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Abstract Body	limit abstract to 250 words	
Introduction	Hydrogen breath test (H ₂ BT) is nowadays the most widely used procedure in the diagnostic workup of lactose malabsorption and lactose intolerance. Technique and interpretation of different hydrogen breath tests are outlined in this review.	
Methods	The aim of this study is to establish whether a simplified two-or three sample test of a third generation of H ₂ BT may reduce time, costs and staff resources without reducing sensitivity. Data from 34 patients (22 men,12 women) with a positive 4 h, nine-sample H ₂ BT were fully tested. Patients were stratified according to the degree of lactose malabsorption, the occurrence and type of symptoms. Sensitivity in the H ₂ BT was tested taking into account two-sample tests (0 min and 120 min or 0 min and 210 min) or three-sample tests (0 min, 120 min and 180 min or 0 min, 120 min and 210 min).	
Results	Using a two-sample test (0 min and 120 min or 0 min and 210 min) the false-negative rate was 35.6% and 27.8%, respectively. With a three-sample test (0 min, 120 min and 180 min or 0 min, 120 min or 210 min), lactose malabsorption was diagnosed in 94.1% (32 of 34) patients and in 97.05% (33 of 34) patients, respectively. Of 20 patients with abdominal symptoms, 5 (26.6%) and 2 (12.2%) would have false-negative results with 0 min and 120 min or 0 min and 210 min two-sample tests, respectively. The three-sample tests, 0 min, 120 min and 180 min or 0 min, 120 min and 210 min, have a false-negative rate of 5.4% and 2.1%, respectively.	

Conclusions

H₂BT is an inexpensive, useful, simple and safe diagnostic test in the evaluation of lactose malabsorption. The third generation quantitative detection of rare gases with the breath expiration with three-sample H₂BT is time- and cost-sparing without significant loss of sensitivity for the diagnosis both of lactose malabsorption and lactose intolerance.