

INTRODUCTION

Point-of-care testing can be defined as pathology testing performed on-site during the patient consultation. It allows a fast test result to be produced and used to make an instant, evidence-based clinical decision¹.

This project focused on *Streptococcus pyogenes* Rapid Testing.

AIMS

- . To determine the sensitivity and specificity of a Streptococcus Group A Rapid Test Kit.
- . To determine if point-of-care Streptococcus A testing is as efficient as laboratory testing.
- . To determine patient and pharmacist acceptability to point-of-care Streptococcus Group A testing.

METHOD

Implementation

40 subjects were recruited from a health centre, a community pharmacy and a paediatric clinic. Patients who showed symptoms of sore throat and fever were asked if they would like to participate in this study.

A swab was then taken from the throat of each patient and tested with GIMA 24523 Streptococcus A rapid test kit whilst another swab was taken and sent to the hospital laboratory. Results were compared.

A questionnaire was given to the patients after the testing, in order to get their perspective on point-of-care Streptococcus A testing.

Pharmacist perception

A total of 50 questionnaires were disseminated in community pharmacies around Malta. The pharmacies that participated were selected by random sampling. The pharmacists were asked questions aimed to determine whether they would readily use such a test kit.

RESULTS

			Standard		
			Positive	Negative	Total
Test	Positive	Count	3	0	3
		% of Total	7.5%	0%	7.5%
	Negative	Count	5	32	37
		% of Total	12.5%	80.0%	92.5%
Total		Count	8	32	40
		% of Total	20.0%	80.0%	100.0%

$X^2(1) = 12.973, p < 0.001$

Table 1: Shows the forty throat swabs tested with the laboratory culture when compared to those tested with the GIMA 24523 rapid test kit.

The sensitivity of the GIMA 24523 is of 0.375 and its specificity is of 1.

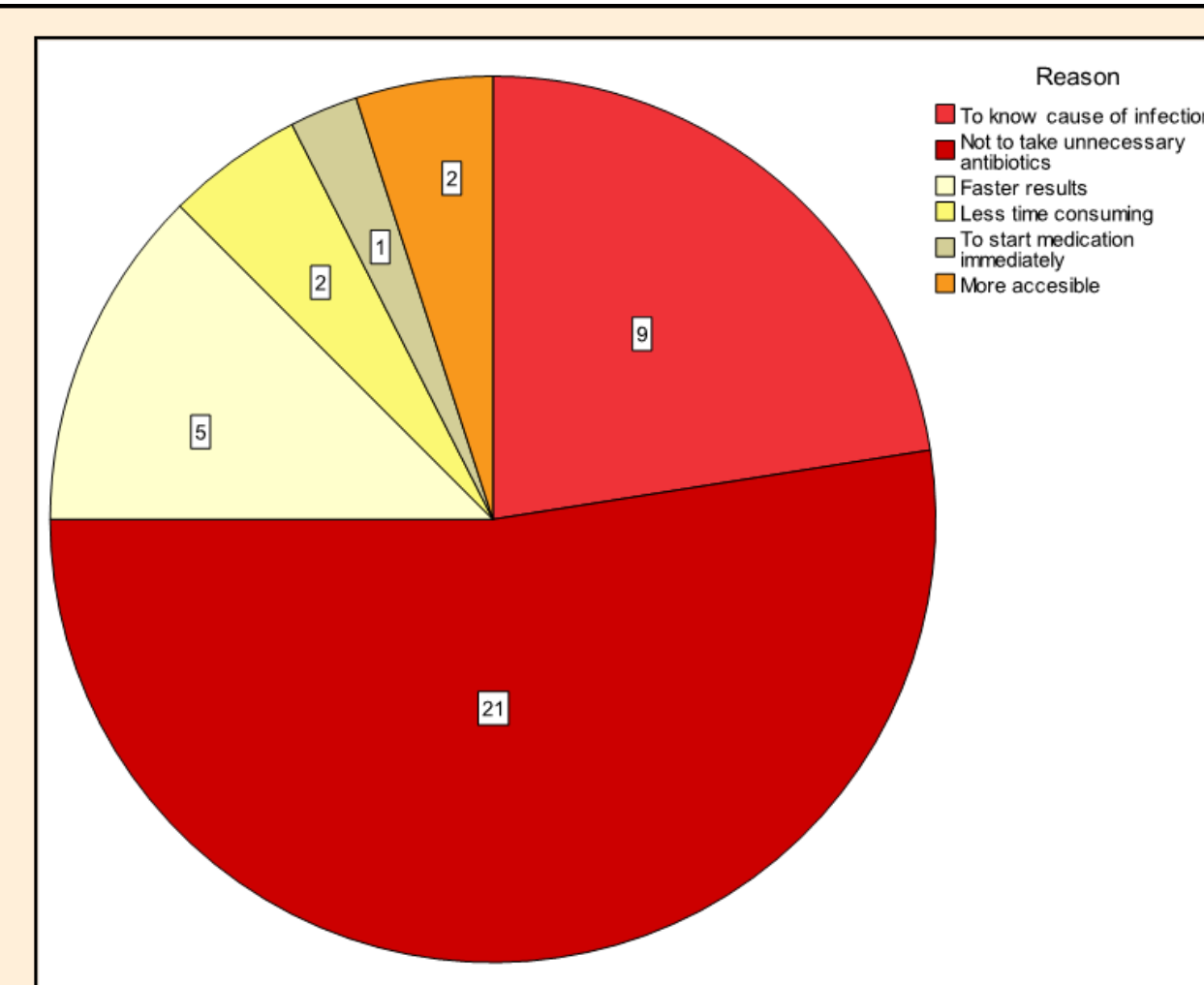


Figure 1: Reasons given by patients when asked why they would undergo the test (n=40).

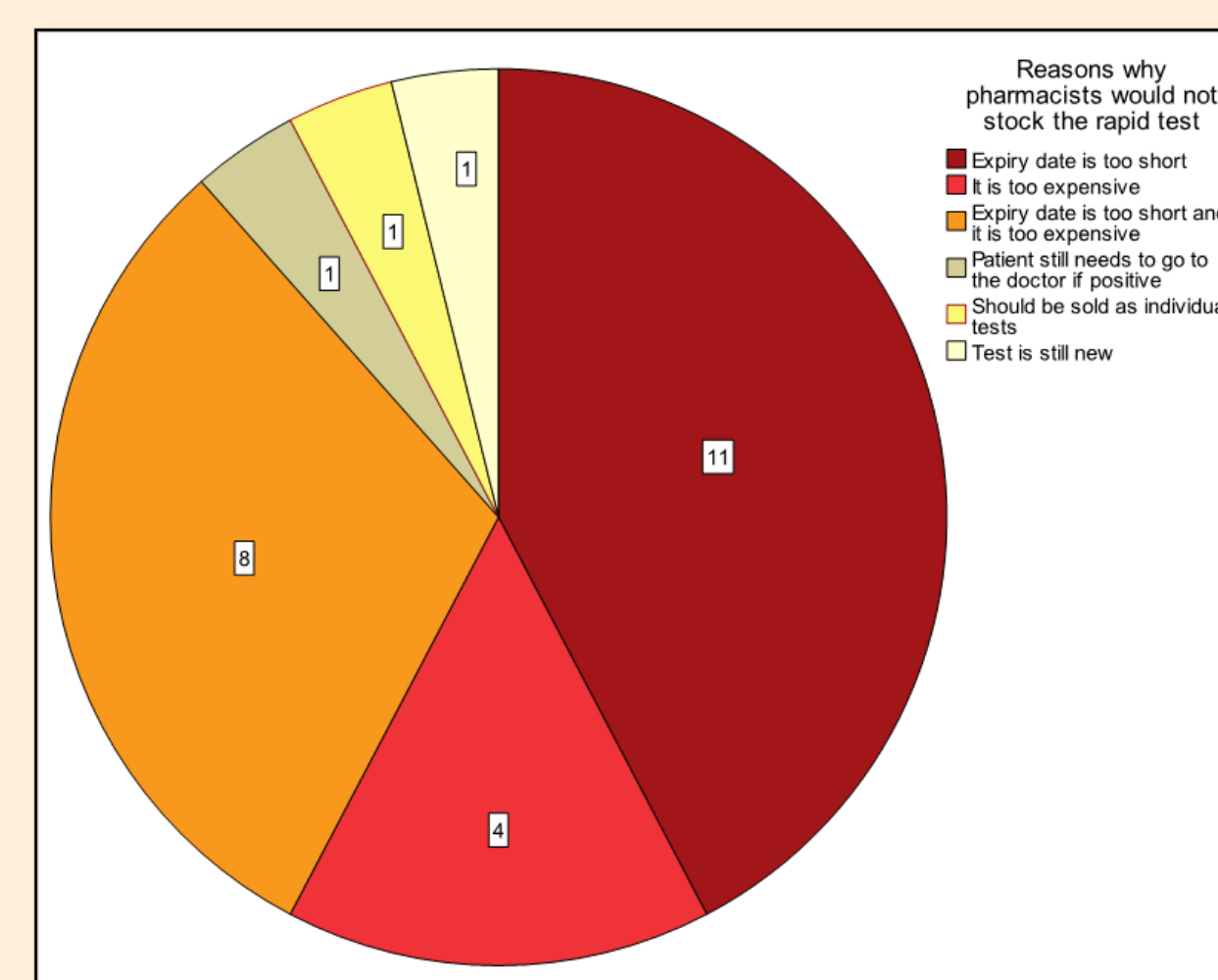


Figure 2: Reasons why pharmacists would not stock the rapid test (n=26).

CONCLUSION

The low sensitivity of the rapid test could lead the physician towards under treatment with antibacterial agents. Thus this rapid test should be backed up with a laboratory culture due to its much higher sensitivity . An SOP has to be implemented where the pharmacist would be able to prescribe antibiotics only in the case of a Strep A positive test.

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Reference(s)

1. Shephard M. Point-of-care testing comes of age in Australia. Aust Prescr. 2010 Feb; 33:6–9.