

**THE PROVISION OF PREGNANCY TESTING
AND URINALYSIS SERVICES BY COMMUNITY
PHARMACISTS**

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The area of diagnostic testing and provision of home test kits is one example where the pharmacist can fill a much needed role as a provider of information and patient education. Diagnostic testing monitors an existing condition and its treatment (e.g. diabetes) and detects or excludes the presence of symptoms of a condition (e.g. pregnancy). The provision of such services is consistent with the pharmacist's extended role since the communication of the test results to clients provides a focus for health education. As a result, pharmacists may promote both primary prevention through health education and secondary prevention by the early detection of health problems through screening.

Urine testing and pregnancy testing services provided from community pharmacies - Preliminary study

Practising Maltese pharmacists (n=120) were questioned by distributing a survey in March 1991, in order to

- 1) determine the current provision of urine testing and pregnancy testing services available at the pharmacy and the types of tests available and dispensed for home diagnosis;
- 2) to identify areas of need such as the present methods of testing, methods of communication of the results and record keeping, so that good information could be supplied; and
- 3) information was collected regarding the quality of advice given by pharmacists on providing the test results.

Results

Result replies were obtained from 69 pharmacists (response rate 57.6%) and showed that:

- a) 98.5% (n=68) provide urine testing services with an average of 11.1 tests performed per week;
- b) 97% (n=67) provide pregnancy testing services with an average of 3 tests performed per week (Table1);
- c) 98.5% (n=68) supply various urine diagnostic products;
- d) 94% (n=63) supply home pregnancy test kits (Table 2);

- e) urinalysis tests most frequently carried out are mainly glucose (34%), pregnancy tests (33%) and protein tests (29%);
- f) the types of test strips available are glucose (29%), pregnancy test kits (27%) and combination test strips (30%);
- g) 82% (n=56) of the pharmacists have adequate facilities for carrying out the tests, such as an adjacent room;
- h) with regards to counselling, any results of the tests and their implications should be explained to the client (Harrison, 1990); 56% (n=38) believe that immediate referral with an explanation of the test results is essential while 44% (n=30) simply refer the patient with an abnormal result to their G.P. and the data collected showed that although the advice stated was accurate it was not given by all the pharmacists;
- i) only 18% (n=12) of the pharmacists communicate the pregnancy test results by means of a written form;
- j) only 9% (n=6) keep records of the tests performed;
- k) only 7% (n=5) perform urinalysis screening together with a pregnancy test.

Table 1: Comparison between local survey and that carried out in the West Midlands

Types of diagnostic service	Number of Pharmacies (%)	
	1991 % Malta (n=69)	1989 % West Midlands (n=131)
Screening tests on urine samples	98.5	0.8
Pregnancy testing	97.0	72.5

Table 2: Home diagnostic products supplied by community pharmacists

Types of diagnostic service	Number of Pharmacies (%)	
	1991 % Malta (n=69)	1989 % West Midlands (n=131)
Pregnancy testing kits	94.0	97.7
Urine glucose testing strips	98.5	77.9

Study 2

The performance of pregnancy testing amongst Maltese women

A randomly selected group (n=130) of pregnant women attending Karin Grech Hospital were interviewed. This survey was aimed at examining the women's choice of pregnancy testing, eliciting information regarding urinalysis tests performed during pregnancy and identifying the role of the pharmacist in this field.

Results

The average age of the pregnant women interviewed was 28. The majority of the women performed their pregnancy test at the doctor/health centre (35%)(n=46), at the pharmacy (34%)(n=44) and 22% (n=28) performed the test at home. The reasons for performing the test at the doctor/health centre or at the pharmacy was the confidence in the pharmacist's/doctor's ability of producing a proper result. 86% (n=38) stated that the pharmacist did not give advice on providing the pregnancy test result and although 58% (n=16) of the subjects using a home pregnancy test kit stated that the major factor in the selection of the specific brand of the kit, included the recommendation of the pharmacist, 64% (n=18) stated that no advice was offered by pharmacists on dispensing the kits. Results show that 83% (n=102) performed the urine tests in the first trimester of pregnancy while only 3% (n=4) of the women performed a urinalysis profile together with a pregnancy test.

Study 3

Pregnancy testing and Urinalysis - A focus for promoting preventive health care activities in the pharmacy

This topic was aimed at assessing the feasibility of improving such a service by enabling pharmacists to perform a urinalysis profile together with a pregnancy test, for the early detection and prevention of maternal infection and disease, and to provide a written confirmation of the results to the clients. 126 pharmacies were visited personally and were provided with:

- 1) educational material on the subject of pregnancy testing and urinalysis;
- 2) a soft cover booklet containing 50 standardised forms (Figure 1);
- 3) a sample of reagent strips containing 7 parameters.

Pharmacists were encouraged to explain the implication of each test result with any general health education advice to the client on performing the test. Prior to providing the service, pharmacists received training in the content of counselling to be given and on the significance of the abnormal constituents found in a urine specimen, through the educational material provided. After a 12 week period, the pharmacists were revisited in order to evaluate the services provided by interviewing the pharmacists personally and to examine the pharmacists knowledge on the subject by supplying a 'True-False Quiz'.

Results

75% (n=91) of the pharmacists participated in the study and carried out the service. However, only 51% (n=62) read the information material provided in order to improve their knowledge in this field and provide a better service. A total of 642 pregnancy tests were performed and a total of 12% (n=38) of the women resulting with a positive pregnancy test had a positive urinalysis profile. 69% (n=63) of the pharmacists did not disclose all information of the client and omitted data such as address, name, age etc. 23% (n=21) of the pharmacists suggested ways of improving the standardized forms such as including the pharmacy letterhead, classifying age into age groups, and allowing more space for

Pregnancy Test & Urinalysis

Name _____

Address _____

Age _____ Tel. No. _____

Days since last missed period _____

RESULT

Positive

Negative

Pregnancy Test Used _____

Leucocytes	<input type="checkbox"/> neg	<input type="checkbox"/> Ca 10 25	<input type="checkbox"/> Ca 75	<input type="checkbox"/> Ca 500	<input type="checkbox"/> Leuko / ul
Glucose	<input type="checkbox"/> normal	<input type="checkbox"/> 50	<input type="checkbox"/> 100	<input type="checkbox"/> 300	<input type="checkbox"/> 1000 mg/dl
Protein	<input type="checkbox"/> neg	<input type="checkbox"/> 30	<input type="checkbox"/> 100	<input type="checkbox"/> 500	<input type="checkbox"/> mg/dl
Blood	<input type="checkbox"/> neg	<input type="checkbox"/> Ca 5 10	<input type="checkbox"/> Ca 50	<input type="checkbox"/> Ca 250	<input type="checkbox"/> Eryl / ul
		<input type="checkbox"/> Ca 10	<input type="checkbox"/> Ca 50	<input type="checkbox"/> Ca 250	<input type="checkbox"/> Ery / ul

Remarks.....

.....

Date.....

No 4202

Signature of Pharmacist.....

EVENT test strip hCG

ONE STEP
PREGNANCY TEST

BOEHRINGER
MANNHEIM



information to be written for the client. Also, omission of all of the personal data was suggested by some pharmacists. 85% (n=77) of the pharmacists reported that the women accepted the service and were pleased to get the results in writing. 15% (n=14) of the pharmacists reported no interest and indifference on the part of the client. 76.9% (n=70) of the pharmacists intend to continue providing this service in the future. Questions of the true - false quiz were answered correctly by many of the pharmacists.

Discussion and Conclusion

The vast majority of pharmacists supply diagnostic products to the public for home use and provide services on the premises. Pharmacists could be doing more by providing information and educating the patients together with performing their tests.

Results show that many women perform their pregnancy test at the pharmacy. Pharmacists providing pregnancy testing services should not be restricted to carrying out the tests but should also extend to adequate counselling on the results obtained, advice on the most suitable test for individual women and provide instructions on the use of the test.

The provision of pregnancy testing and urinalysis service from pharmacies was found to be successful and the acceptability of the testing service was high. Results of the preliminary study revealed that prior to providing the service, the pharmacists required training in this field. This study has shown that community pharmacists are now well informed and able to perform a valuable health promotion role in this area.

Future studies should evaluate the effect of pharmacist's counselling when providing the test results and the acceptability to clients of the advice given by pharmacists as well as the actions and any lifestyle changes made as a result of the pharmacists' interventions.

The practice of such a service and similar services would project a better professional image, a more satisfying role and this represents a way forward for pharmacy.

References

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