Research letter

Effectiveness of follow up-letters to health care providers in triggering follow-up for women with abnormal results on Papanicolaou testing

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On average, 24% of women with a cervical abnormality detected by a cervical smear test (Papanicolaou or Pap test) do not receive any follow-up.[1] Without follow-up, the cervical abnormality may go unnoticed and progress.[2] Recall letters sent by a cytology registry to the health care provider and the woman can, in 18% to 24% of such instances, trigger a follow-up encounter.[3–5]

For Pap tests analyzed by the laboratory of the Foothills Medical Centre in Calgary, a follow-up reminder program identifies all routine tests resulting in diagnosis of an abnormality, as well as technically unsatisfactory and limited normal tests. If laboratory records indicate that the woman has not returned for repeat Pap testing or tissue sampling as recommended by the pathologist,[6] the laboratory information system sends a letter to the health care provider who requested the test, seeking information about the recommended follow-up.

No follow-up procedure was registered in the laboratory information system for 1500 (approximately 10%) of the routine Pap tests conducted between Jan. 1 and June 30, 1997. A reminder letter was sent to the provider in all of these cases. The 991 replies (66.1% response rate) indicated that for 238 (24.0%) of the women, the recommended follow-up was in fact complete or scheduled (Table 1). Noncompliance with the pathologist's recommendation related mostly to the provider being unable to contact the women (199 women [20.1%]) or the women not keeping booked appointments (154 women [15.5%]). The letters triggered follow-up for 104 (10.5%) of the women. The overall cost to the laboratory was $0.80 for each letter and $11.59 for each follow-up encounter triggered by the letter.

The recall letter was probably inappropriate for the 103 women (10.4%) for whom the management recommendation was not followed (either because the women refused the recommendation or for some other reason) (Table 1). However, short of the provider informing the laboratory of such instances, generation of the letter cannot be prevented in these cases. These situations undermine the overall effectiveness of the follow-up letter program, and the superfluous letters inconvenience health care providers.

The reported loss to follow-up was 35.6% (total of 353 women), which is higher than the reported average of 29% but falls within the reported range of 13% to 42%.[1] How-

Table 1: Results of reminder letter sent to physicians of women with abnormal results on Papanicolaou (Pap) testing*

Result	No. (and %) of patients	
Letter triggered follow-up	104	(10.5)
Follow-up already booked or complete		
Follow-up Pap test done	147	(14.8)
Colposcopy or surgery done	52	(5.2)
Appointment booked	39	(3.9)
Subtotal	238	(24.0)
Follow-up booked, but appointment not kept	154	(15.5)
Management recommendation not followed		
Woman refused recommendation	24	(2.4)
Woman currently pregnant	25	(2.5)
Woman underwent second Pap test, not colposcopy	54	(5.4)
Subtotal	103	(10.4)
Woman could not be contacted		
Physician could not contact	89	(9.0)
Woman had changed health care provider	91	(9.2)
Woman no longer with health care provider	19	(1.9)
Subtotal	199	(20.1)
No reason given for noncompliance		
None given	155	(15.6)
Misclassified†	38	(3.8)
Subtotal	193	(19.5)
Total	991	(100.0)

*A total of 1500 letters were sent (for women for whom there was no record that pathologist's management recommendation had been completed), of which 991 (66.1%) were returned.
†Results were originally classified in another category and were subseqently classified as "no reason given" on later review.

ever, the actual loss to follow-up could be as high as 70% if the 509 women for whom no response was received and the 193 women whose noncompliance was not explained were all lost to follow-up. The relatively inexpensive laboratory-based letter program triggered follow-up for 10.5% of the women. The effectiveness of the program in triggering follow-up might have been better if a copy of the letter had been mailed to the woman, as well as to her health care provider. The 199 women (20.1%) who could not be contacted by their provider might have been reached by this strategy. The inclusion with the recall letter of educational material emphasizing the importance of follow-up might improve compliance with booked appointments.

On the basis of the results obtained in this study, the reminder letter program has since been modified. Information about follow-up that has already been completed is no longer requested in the letter but is obtained by linkage with another laboratory information system, to reduce the number of letters sent for women whose follow-up appointments have already occurred. Creation of a central registry by linking all free-standing laboratory information systems in a regional or provincial health system would improve the targeted nature of such a program. The focus of our recall letter program is now on the reminder function (rather than on the collection of data about follow-up already complete). The effectiveness of the modified program will be evaluated in a future study.

This article has been peer reviewed.

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Contributors: Dr. Wagner conducted the literature review, collated the follow-up letters, analyzed the outcomes and assisted in writing the manuscript. Dr. Duggan formulated the study objective and design, supervised the data analysis and assisted in writing the manuscript.

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