Evaluation of Recall and Reminder Letters on Retention Rates in an Organized Cervical Screening Program

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Abstract

Objective: It is key for women to return to screening at regular intervals to ensure the effectiveness of early detection and protective effects of the Pap test. A correspondence program was initiated in Ontario in 2013 to implement a recall and reminder letter sent to women 2.9 years from their prior normal Pap test. This study sought to evaluate the impact of the recall letter and reminder on retention rates for cervical screening.

Methods: A cohort study with a historical control was carried out with an exposed group, defined as women receiving a letter for recall in the week of November 21–27, 2013, and a non-exposed, control arm of women who did not receive the letter but who would have been eligible for correspondence in the same time period in 2012.

Results: The study population comprised 5182 women in the exposed group and 4223 women in the non-exposed group. Women receiving the letter were more likely to return to screening, with an aOR of 1.82 (95% CI 1.66 to 1.99). Other significant factors included being registered with a Patient Enrolment Model family physician and having a series of prior Pap tests in the past screening history.

Conclusion: A correspondence program benefits the retention of women in organized cervical screening programs.

Résumé

Objectifs : Pour que l'efficacité de la détection précoce et l'effet protecteur du test Pap soient assurés, il est important que les femmes subissent un dépistage régulier. Un programme par correspondance consistant à envoyer aux femmes une lettre de rappel les invitant à subir un nouveau test Pap 2,9 ans après leur dernier dépistage normal a été mis sur pied en Ontario en 2013. La présente étude avait pour but d'évaluer l'effet de cette lettre sur le taux de rétention des femmes dans le cadre du dépistage du cancer du col utérin.

Méthodologie : Une étude de cohorte avec un groupe témoin historique a été menée auprès d'un groupe de femmes exposées, c'est-à-dire ayant reçu la lettre de rappel dans la semaine du 21 au 27 novembre 2013, et un groupe de femmes non exposées, c'est-à-dire n'ayant pas reçu la lettre, mais qui y auraient été admissibles au cours de la même période en 2012.

Résultats : Les groupes de femmes exposées et non exposées comptaient respectivement 5 182 et 4 223 femmes. Les femmes ayant reçu la lettre avaient plus tendance à se présenter pour un dépistage : le RCA était de 1,82 (IC à 95 % : 1,66 à 1,99). Parmi les autres facteurs importants, notons le fait d'avoir un médecin de famille qui exerce selon un modèle d'inscription des patients et celui d'avoir subi plusieurs tests Pap auparavant.

Conclusion : Un programme de correspondance a des effets bénéfiques sur la rétention des femmes dans les programmes structurés de dépistage du cancer du col utérin.

Key Words: Correspondence, organized cervical screening program, recall

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INTRODUCTION

For a cervical cancer screening program to succeed, participation of eligible women in the program is required, both by presenting for screening and by repeating the screening test at regular intervals to maintain the protective effects of screening. The purpose of a Pap test is to detect precancerous or dysplastic lesions on the cervix. This would then allow further examination of those with abnormal results to have high-grade lesions detected and removed from the cervix. The Pap test, however, has limited sensitivity to detect lesions on the cervix. Studies have found that the sensitivity of cytologic examination

ranges from 60%–80%,[1,2] whereas other studies have shown the sensitivity of a Pap test for detecting cervical intraepithelial neoplasia 2+ to be as low as 55%.[3]

The limited sensitivity of Pap test results is concerning because it contributes to high proportions of false-negative test results. This issue highlights the necessity to return to screening at regular intervals for women who have had both false-negative and true-negative Pap test results. In fact, the protective effects of Pap test screening last only for a certain period of time. A case-control study found that, compared with women who have not had a Pap test in 4 years, the risk of invasive cervical cancer can be reduced by 85% among women who have had one Pap test in the 4 years before a cancer diagnosis.[4] It was found that women who have had two or more Pap tests within 4 years can reduce their risk of invasive cervical cancer by 96%. This finding suggests that Pap test screening has a significant protective benefit against the risk of developing invasive cervical cancer, especially for women who undergo screening on a regular basis. Similar findings showing the protective effects of Pap test screening were also observed in other case-control studies.[5–8]

In 2013, the centralized cervical cancer screening program in Ontario (the OCSP) initiated a recall correspondence intervention. Eligible women who are due for their repeat Pap test receive a recall letter every 3 years that invites them to return for screening. Women are sent a recall letter 35 months (2.9 years) after their last normal Pap test result. A reminder letter is sent 4 months after the recall letter is sent, if the woman has not gone for screening during that 4-month period.

The purpose of this investigation was to perform a cohort-historical control study to measure the effect of the recall letter in a centralized screening program with a jurisdiction of 4.3 million eligible women. Specifically, this study aimed to assess whether letters contribute to an increase in return to cervical screening among the population of eligible women in Ontario.

ABBREVIATIONS

CCO	Cancer Care Ontario
LHIN	Local Health Integration Networks
OCSP	Ontario Cervical Screening Program
OHIP	Ontario Health Insurance Plan
PEM	Patient Enrolment Model

METHODS

This study was a population-based cohort-historical control study that took place in the province of Ontario.

Study Population

The study population consisted of two cohorts of Ontario women who were eligible for a subsequent cervical screening test. The first group consisted of women who were sent a recall letter (the intervention group). The second group consisted of women who did not receive a letter (historical control group).

Between November 21 and 27, 2013, all women eligible to return for cervical screening were sent a recall letter by the OCSP to inform them that they were due for a Pap test in another month (December 2013). These women, who were part of the study's intervention group (exposed to the recall letter), were aged 21–69. Their last Pap test was 2 years and 11 months before the week of November 21–27, 2013. According to the 2012 OCSP guidelines, women with negative Pap test results are to return to screening once every 3 years. Women who met at least one of the following criteria were excluded and not sent a letter: (1) were deceased, (2) had invalid OHIP coverage, (3) had an address outside of Ontario, (4) had a Pap test within 2.9 years of November 21–27, 2013, (5) had invasive cervical cancer in the past, (6) had a hysterectomy in the past, and (7) had colposcopy or treatment activity within 2.9 years before November 21–27, 2013.

The historical control group consisted of women who did not receive a recall letter but who would have been eligible to receive it in November 2012. This was exactly 1 year before CCO started sending recall letters to all eligible women in November 2013. The historical control group consisted of women aged 21–69. They would have been due for screening in December 2012 because their last Pap test was 2 years and 11 months before the week of November 21–27, 2012. As a result, women who had their Pap test between December 17 and 23, 2009 were included in the historical control group. The exclusion criteria for the control group were the same as those for the intervention group.

Ethics

A privacy review was conducted by the CCO Legal and Privacy office, which determined that as a prescribed entity, CCO is authorized to collect personal health information from health information custodians, without the consent of the patient, and use such personal health information for the purpose of analysis or compiling statistical information