

Why Coverage of Influenza Vaccine Is Not Enough in Patients Receiving Chemotherapy?

Mohsen Meidani¹, Mojtaba Rostami¹, Farzaneh Dehghani²

¹ Department of Infectious Diseases, Isfahan University of Medical Sciences, Isfahan, Iran.

² Medical Student, Isfahan University of Medical Sciences, Isfahan, Iran.

Date of Submission: Apr 13, 2010

Date of Acceptance: May 21, 2010

Correspondence to:

Mohsen Meidani, M.D

Assistant Professor, Department of Infectious Diseases, Isfahan University of Medical Sciences, Isfahan, Iran

Email: meidani@med.mui.ac.ir

Int J Prev Med 2011; 2(3): 186-187

DEAR EDITOR,

Instead of strict recommendations of experts of doing vaccination in chemotherapy patients, they may not be aware of its necessity, except to be encouraged by their responsible healthcare workers. As it is clear that morbidity and mortality of influenza is high in immunocompromised patients.^{1,2} According to some reports, mortality rate of influenza infection can reach 9% among oncology patients.³ Vaccination against influenza is recommended in immunosuppressed patients, including those who receive anticancer chemotherapy.⁴ Absence of immunization commands, particularly against influenza, endangers the quality of life in patients with cancer.³ Generally, although patients with cancer respond positively to vaccination, the utility of influenza vaccination is very low in this population.

The purpose of this study is to evaluate if the influenza vaccine coverage in oncology patients under chemotherapy treatment is enough to guarantee prevention during the season. We also tried to investigate the factors influencing coverage rate. Between January and March 2010, we performed a prospective, monocentric study in 100 patients with median age of 47 years (range 16–79). A standardized form was given to all cancer patients receiving chemotherapy in our department. The median time to receive chemotherapy was 14 months (range out of 1–180) among the patients with colorectal (30%), sarcoma (6%), leukemia (18%), and breast and ovarian (11%) cancers.

Only nine patients (9%) had received influenza shots: Chemotherapy was the reason for shot

in only 44.4% of those who were vaccinated, while 55.6% of remaining people got the vaccine for some other reasons. No relationship was found between the vaccination rate and age. A similar study published in 2008 reported 30% of coverage which is pretty much more in our study.⁵

Although cancer patients often care about their own health, but health workers may neglect to recommend influenza vaccine that may be the leading cause of low vaccination rate. It is important to encourage patients with cancer to get a flu shot before the season is going off. In addition, fear of side effects is among the factors that crash coverage of vaccination in this group. According to the immunologic status of oncology patients, more attention is required to make their coverage full especially in those undergoing chemotherapy.

Acknowledgment

The authors thank Mrs Mahnaz Tabakhan for her kind corporation.

Conflict of interest statement: All authors declare that they have no conflict of interest.

Source of funding: None.

REFERENCES

1. Yee SS, Dutta PR, Solin LJ, Vapiwala N, Kao GD. Lack of compliance with national vaccination guidelines in oncology patients receiving radiation therapy. *J Support Oncol* 2010; 8(1): 28-34.
2. Kunisaki KM, Janoff EN. Influenza in immunosuppressed populations: a review of infection frequency,

- morbidity, mortality, and vaccine responses. *Lancet Infect Dis* 2009; 9(8): 493-504.
3. Cooksley CD, Avritscher EB, Bekele BN, Rolston KV, Geraci JM, Elting LS. Epidemiology and outcomes of serious influenza-related infections in the cancer population. *Cancer* 2005; 104(3): 618-28.
 4. Fiore AE, Shay DK, Haber P, Iskander JK, Uyeki TM, Mootrey G, et al. Prevention and control of influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2007. *MMWR Recomm Rep* 2007; 56(RR-6): 1-54.
 5. Loulergue P, Mir O, Alexandre J, Ropert S, Goldwasser F, Launay O. Low influenza vaccination rate among patients receiving chemotherapy for cancer. *Annals of Oncology* 2008; 19(9): 1658.

Erratum

The paper;

Epigenetically Reprogramming of Human Embryonic Stem Cells by 3-Deazaneplanocin A and Sodium Butyrate'. *Int J Prev Med*. 2011 Apr-Jun; 2(2): 73-78. is retracted from the journal because the paper was submitted, reviewed and published without the knowledge or permission of the corresponding author.