**Effectiveness of a Pharmacist-Directed Tdap Immunization Program for a University Campus**

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**BACKGROUND**

- Despite progress in immunization rates, 42,000 adults and 300 children die each year in the United States from a vaccine-preventable disease.1
- Two goals from Healthy People 2020 include increasing Tdap immunization rates and reducing the cases of pertussis among children less than 1 year of age.2
- Among patients who are indicated for Tdap vaccination, only 17.2% actually receive it. This is a 2.9% increase from a 2012 measure, but could be significantly increased.3
- Among patients who received a Tdap immunization, 51.2% reported they were not informed of the vaccination type. Without this knowledge, patients will not know if they need a Tdap and will not outwardly pursue vaccination.4
- Studies have assessed the effectiveness of physician recommendations for Tdap and have found an increase in Tdap immunizations when the patient is prompted by a physician. Studies have also looked at the pharmacist’s role in increasing Tdap immunizations in high risk populations and have found that recommendations from pharmacists have increased immunization rates. This study expands on the previous literature and focuses on the pharmacist’s role in screening and recommending Tdap vaccinations in the general population.5,6

**OBJECTIVE**

- **Primary objective:** To assess the effectiveness of a pharmacist-directed Tdap vaccination program on immunization rates. The program is considered effective if vaccination rates increase by 35% among the population.
- **Secondary objectives:** To assess patient knowledge of Tdap/ tetanus/ pertussis based on pre and post assessment data, the benefit of a pharmacist during vaccination screenings, and the effect of a pharmacist on increasing vaccination rates.

**SETTING AND SAMPLE**

- Patient visits take place at ONU HealthWise, an on-campus employee and student health and wellness clinic
- **Inclusion:** aged > 18, a current student, employee, or retiree at Ohio Northern University, and indicated for the Tdap vaccine
- **Exclusion:** previously received the Tdap vaccination as indicated or they do not meet the inclusion criteria

**METHODOLOGY**

- **EMPLOYEES/ RETIREE**
  - Each patient signs an informed consent form prior to study inclusion.
  - Patients were previously screened in late September, early October during an Employee Health Screening (EHS). Every employee and retiree was welcomed to attend a lab draw hosted at Ohio Northern University. While patients were waiting, they were asked to fill out the Tdap Indication Screening Tool (TIST).
  - The TIST identifies patients based on Advisory Committee on Immunization Practice (ACIP) guidelines who are indicated to receive Tdap vaccination and who still need to receive the Tdap vaccine.
  - After screening, patients will be invited to attend an educational segment discussing the common indications for Tdap, the differences between the decennial Td booster and the Tdap vaccine, and the importance of the Tdap vaccination. The session will also cover common misconceptions about immunizations.
  - Patient knowledge about pertussis and the Tdap vaccination will be assessed before and after the educational program.
  - After the educational program, patients will be contacted based on responses from the TIST to see a pharmacist at ONU HealthWise.
  - At the appointment, vitals, past medical history, and background demographics will be collected.
  - The Tdap vaccine will be administered by an ONU HealthWise pharmacist and the patient will be monitored for 10 minutes before the appointment concludes.
  - The study will provide both descriptive and inferential statistics regarding the primary and secondary outcomes.
  - This study was approved by ONU’s Institutional Review Board.

- **STUDENTS**
  - Any student needing Tdap vaccination will be identified through the ONU Student Health Center in accordance with ACIP guidelines.
  - Pharmacy students in the third and fifth year need an updated tetanus vaccine before going on Introductory Pharmacy Practice Experiences (IPPEs) and Advanced Pharmacy Practice Experiences (APPEs).
  - The ONU Student Health Center routinely administers Tdap to any student needing a tetanus booster.
  - An ONU HealthWise pharmacist will make regular appointments with students in the ONU Student Health Center to administer the Tdap vaccine and will observe for 10 minutes before the students will be dismissed.

**RESULTS**

- **Number of TIST responses** 179
- **Tdap indicated** 122
- **Tdap not indicated** 57
- A total of 122 employees/retirees will be followed-up with in order to make an appointment with an ONU HealthWise pharmacist to administer the Tdap vaccine.
- An educational newsletter and the educational program are in development.
- Results are pending and will be submitted for publication.

**REFERENCES**

2. 1. Baroy J, Chung D, Frisch R, et al. The impact of pharmacist immunization programs on adult immunization rates: A systematic review and meta-
4. Baroy J, Chung D, Frisch R, et al. The impact of pharmacist immunization programs on adult immunization rates: A systematic review and meta-

**AUTHOR DISCLOSURE**

Authors of this project have nothing to disclose.

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