PREVALENCE AND CORRELATES OF HUMAN PAPILLOMAVIRUS VACCINATION IN ADOLESCENT GIRLS: RESULTS FROM NATIONAL SURVEY OF CHILDREN'S HEALTH

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OBJECTIVES: To determine prevalence and correlates of Human Papillomavirus (HPV) vaccination in adolescent girls who were recommended to receive vaccine by their health care providers. METHODS: A retrospective cross-sectional analysis involving adolescent girls (11–17 years) was conducted using the 2007 National Survey of Children's Health (NSCH). The analysis focused on adolescent girls who were recommended to receive HPV vaccine. Descriptive weighted statistics was used to examine prevalence of HPV vaccination. Multivariate logistic regression within the conceptual framework of Andersen Behavioral Model was used to examine the correlates of HPV vaccination in this at-risk population. RESULTS: Of 14.43 million adolescent girls in the United States, 3.69 million or 25.54 % (95% Confidence interval [CI] 24.02–27.06) were recommended to receive HPV vaccine by their health care provider. Amongst those who were recommended, only 48.75% (95% CI, 45.37–52.13) received the HPV vaccine. The majority who received the HPV vaccine were in the 13–17 age groups (82.67%), white (66.94%), and non-Hispanic (84.83%). Multivariate logistic regression revealed that enabling (socioeconomic status) and predisposing (number of adults in the household and preventive medical care visit) factors were significantly associated with the HPV vaccination. Children living at 100–200% of the Federal Poverty Level (FPL) (Odd’s Ratio [OR] 0.54, 95% CI 0.30–0.98) were less likely to receive the vaccine than those below 100% of the FPL. Children in households with two or more adults (OR 0.51, 95% CI, 0.33–0.80) were negatively associated and those with any previous preventive medical care visit (OR 2.28, 95% CI, 1.36–3.84) were positively associated with HPV vaccination. CONCLUSIONS: Less than half of the girls received HPV vaccine among those who were recommended to receive the vaccine by their health care provider. The study finding emphasizes importance of predisposing and enabling factors for HPV vaccination. Policy and educational efforts can focus on these factors to improve HPV vaccination rates.

HPV VACCINE COVERAGE AND ADOPTION ACROSS THE UNITED STATES

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OBJECTIVES: Human Papilloma Virus (HPV) is a sexually transmitted disease (STD) and is the leading cause of cervical cancer. Merck’s Gardasil, an HPV vaccine in the US, protects against cervical cancer and genital warts. The CDC recommends HPV vaccination for females 11–12 years old, yet vaccination rates vary significantly by state from 15.8% to 54.7%. The objective of this study was to evaluate coverage of HPV vaccination and explore explanation for variation across the United States. METHODS: Our study included analysis of CDC vaccination rates, American Community Survey (Census) data, and additional government agency datasets. The vaccination rate is defined as vaccination of the 1st dose (three doses are recommended in total). Health care system and socioeconomic characteristics were identified and evaluated with respect to HPV vaccine coverage. Regression models were run on each state-level variable separately. RESULTS: The correlation between HPV vaccine rates and the percent of children attending religious service on a weekly basis resulted in a significant inverse relationship. The analysis yielded a R^2 value of 0.41, an f-value of 33.47 and a −5.79 F Stat score. Teen birth rates also resulted in a negative correlation with HPV rates. CONCLUSIONS: The correlation between HPV vaccine rates and the percent of children attending religious service was a significant inverse relationship. An array of socio-economic and health care system variables were correlated with the HPV vaccination rates by state. Public health programs focused on influencing these state-level variables may precipitate improvement in HPV coverage.

IDEAL VIAL SIZE FOR BORTEZOMIB: REAL WORLD DATA ON WASTE AND COST REDUCTION IN MULTIPLE MYELOMA (MM)

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OBJECTIVES: Single size vials of chemotherapy drugs may be a source of waste and increase in treatment costs. Bortezomib, a drug frequently used in MM treatments, is available in a 3.5mg vial (above the average dose commonly prescribed) without antimicrobial preservatives, making mandatory its administration within 8 hours of preparation. Through real world data collected from Evidencia® a dedicated database of cancer treatments (www.evidencias.com.br) we aimed to demonstrate which would be the optimal vial presentation for Bortezomib. METHODS: From November 2007 to October 2009 all patients with MM treated with Bortezomib were identified on Evidencia®. Analysis of prescribed, dispensed and wasted doses, their costs and which would be the ideal vial size were performed. RESULTS: We identified 35 patients that received Bortezomib in this period (mean body surface area of 1.7 m^2). Mean prescribed dose per infusion was 2.1 mg which generated a waste of 1.4 mg (40%) of each vial. Due to this waste, the total amount of the drug used was 1 907.8 mg at a cost of US$1 565.997 to cover the prescribed amount of 1,216.14 mg (US$ 772,932.08). The total waste was of 691.36 mg (US$46,926.89). The patients received a total of 131 cycles (mean of 3.77). The mean waste was 4.89 mg per cycle and 14.4 mg per patient. If a 3 mg vial were available, (maintaining a proportional price to the 3.5 mg one) the total cost of treatment would be US$994,836.88 (16.6% lower) and the drug waste would be reduced by 34.72% (9.4 mg per patient). CONCLUSIONS: A simple adjustment in vial size reduces Bortezomib waste by 34.72% and results in a cost reduction of 16.6%. Further models using different vial sizes, combined to dose adjustment and patient scheduling may increase the economy even more.

NUMBER OF DOCETAXEL TREATMENT CYCLES AND OVERALL SURVIVAL FOR METASTATIC PROSTATE CANCER—RESULTS FROM A US LOCAL COMMUNITY PRACTICE

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OBJECTIVES: Docetaxel (D) is well recognized as the first-line chemotherapy in patients with metastatic prostate cancer (PC). Of interest is the relationship between the number of treatment cycles and overall survival (OS) benefit. This study investigated the relationship between number of cycles and OS in a community practice. METHODS: The Georgia Cancer Specialist Database (2003–2008) was used. Patients with initial stage IV PC receiving D were followed from the date of first D use to the earlier of death or loss to follow-up. The three-month period prior to the first D use was defined as the baseline. Patients were stratified into two groups based on mean cycle number. OS was compared using the Kaplan-Meier curve. The impact of cycle number on OS was further examined using multivariate Cox model with adjustment of age, comorbidity, baseline PSA, baseline bisphosphonate use, hormonal therapies and other...