

policy on young adults to educate them on harms of alcohol and minimise consequences of harmful use of alcohol for a healthy population in the long run.

555 THE IMPACT OF THE DIGITALIZATION TO THE MEDICAL SUPPLY CHAIN

Teijo Peltoniemi, Reima Suomi. *University of Turku, Finland*

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Background Digitalization equalises information asymmetries, which increases economic efficiency and transforms many lines of business. We argue that digitalization can do the same within the medical supply chain.

Methods We utilise conceptual theory building. This is supported by a literature review and an interview conducted with a key actor within the Finnish pharmaceutical arena.

Results 1) Electronic prescription has the potential to increase the information between physician and patient. Some positive results have been obtained relating to medication safety. 2) The generic substitution system has been implemented to decrease the information asymmetry relating to medicine prices. This has had an effect on the annual medicine expenditures in Finland. 3) These developments have however no influence to the lack of patient adherence. It is a form of information asymmetry with a grave impact to the healthcare system. Adherence could be alleviated with digital solutions. These include solutions supporting patient engagement as well as controlled delivery of medicines at home. 4) Outcomes-based medicine tries to decrease the uncertainty in the field of medical care. This can be alleviated with data gathered from the patient with innovations such as wearables. This can have impact also to the moral hazard threat in the health insurance field. 5) Overall, there is more information available on medical treatments, which should be utilised to increase the patient engagement. 6) Medicine spoilage and shortage are severe information asymmetry related problems. Digital systems could support the prediction of the demand and real time tracking of the consumption of medicines.

Conclusions Digitalization could improve the medical supply chain by decreasing the information asymmetries between different actors. Whereas there is some promising development, considerable potential remains still unused.

556 PREVALENCE AND FACTORS ASSOCIATED WITH WORK-RELATED INJURY AMONG 40/60 CONDOMINIUM CONSTRUCTION WORKERS IN ADDIS ABABA, ETHIOPIA

Dagnachew Israel, Sebsibie Tadesse, Mekuriaw Alemayehu. *University of Gondar, Ethiopia*

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Background Injuries pose a major public health and development problems in construction work places. However there is limited studies and given less attention by the government and companies to protect the construction workers from injury. This study aims to estimate prevalence and factors associated with injury among 40/60 condominium construction workers in Addis Ababa, Ethiopia.

Methods A cross-sectional quantitative data method was conducted to estimate the prevalence and factors associated with injury among 40/60 condominium construction workers. For the survey, 504 workers from city government of Addis Ababa 40/60

condominium sites were selected using multistage sampling technique. Data were collected using pre-tested and structured questionnaire. The data were entered by using EPI Info version 7 and analysed using SPSS version 20, and results were presented in tables and figures. Odds ratio with 95% confidence interval was used as a measure of effect.

Result The prevalence is 38.3%, of the respondents have got injuries. Marital status (married of [AOR: = 0.054 (0.005–0.616)], single AOR: = 0.058 (0.005–0.661), Divorcee [AOR: = 0.072 (0.005–0.0989)] and coupled [AOR: = 0.031 (0.002–0.403)], service [AOR: = 0.404 (0.231–0.711)], chewing chat [AOR: = 2.570 (1.589–4.158)] and not using personal protective device [AOR: = 0.355 (0.192–0.654)] were significantly associated with injury among 40/60 condominium construction workers.

Conclusion In this study the prevalence of injury among 40/60 construction workers was 38.3% CI 95% (33.9, 42.5) with significant associated factors of marital status, chat chewing, service year and not using personal protective device. Therefore counter measures such as creating awareness of risk factors, providing and using personal protective devices could be effective to decrease prevalence of injuries among construction workers.

557 PRESCRIBED MEDICATION AND ADVERSE DRUG EVENTS BY UNINTENTIONAL POISONING AMONG OLDER ADULTS: A SWEDISH POPULATION-BASED MATCHED CASE-CONTROL STUDY

^{1,2}Christian Rausch, ¹Lucie Laflamme, ¹Jette Möller. ¹Karolinska Institutet Sweden; ²University Medical Centre Groningen, The Netherlands

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Background Specific types of medications, but also drug-drug interactions are known to lead to adverse drug events (ADE) among older people. However, only small numbers of controlled epidemiological studies investigated ADE with particular focus on the prescription of inappropriate medications (inappropriate drug use – IDU) or the number of medications prescribed. This based study investigates the association between the number of prescribed medications and ADEs, while considering different indicators of inappropriate drug use (IDU).

Methods In this study we utilised a matched case-control design among Swedish residents 50 years and older. The National Inpatient Register and the Causes of Death Register were used to extract cases with and ADE by unintentional poisoning that resulted in a hospitalisation or death within January 2006 to December 2009 (n = 5,336). Each case was matched with four controls, based on age, sex and residential area. The controls were randomly selected among the individuals without an ADE (n = 21,344). Any medication prescribed during the four-month period prior to the ADE were selected by using the Swedish Prescribed Drug Register and were then categorised based on the total number of medications prescribed and on correspondence with an IDU indicator (known single-drug and drug combinations). Effects were estimated with odds ratios (OR) and 95% confidence intervals (CI:) by applying conditional logistic regression.

Results Each of the indicators for IDU was associated with a high risk of ADE among older people. We found a lower, yet still positive and graded association between the total number of medications prescribed and the risk for ADE, starting by two medications to ten or more. The risk of ADE remained increased when the total number of medications prescribed was at three to