Introduction: The objectives of this study were to determine the air curtain velocities of hood to capture and contain the splashing oil. The optimal flow of air curtain velocities is introduced to apply cooking by pan frying.

Methods: At the first stage, palm olein oil was poured to a pan and fried at constant temperature of 180 ± 5 °C for 140 seconds. In the meantime, the 4-air flows, which were generated by blower at initiation velocity to be 0 m/s, 8.5 m/s, 11.5 m/s and 14.5 m/s were compressed through the slot of hood opening (dimension 10 mm. x 500 mm.). Then, water droplets were sprayed into boiling oil in order to generate oil splashing. At the final, the oil droplets were evaluated by gravimetric weighting method as an indication of splashing oil protection.

Results: The velocities of air curtain, which generated for three level, were observed to describe the flow pattern at the hood opening. The flow velocity released at high initial velocity and gradually decreases into moderately still air. The different weight of oil droplets were found out that the difference in weight-oil droplets between each group is insignificant. However, their weights were significantly lower than the closed-hood, which was confirmed by ANOVA (P ≤ 0.005).

Conclusion: All of the air curtain velocities were found to protect oil splashing from pan frying. These results demonstrated that these velocities can to be modified for cooking-generated test results on variety of velocity to predict more closely their real-work, in-use performance.

Keywords: air curtain, oil droplets, oil splashing

PL_03
ANTINEOPLASTIC DRUGS EXPOSURE AMONG HEALTH CARE PERSONNEL

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Introduction: Antineoplastic drugs (AD) are used in treating cancer and some other non-neoplastic diseases. A large number of studies demonstrated cytotoxic and genotoxic effect among health care personnel handling AD. At present, the exposure to AD among nurses and pharmacists in Malaysia is unknown. The objectives of this study are to evaluate the route of healthcare workers exposure to AD and to correlate the level of AD in the environment with their urine level.

Methodology: Air samples are collected using solid sorbent tubes and surface wipe sample. The samples are then extracted and analysed using Liquid Chromatography-tandem Mass Spectrometry (LC-MS/MS 8030) according to the procedure modified from literature review in the Shimadzu-Centre for Xenobiotic Studies (SUCXES), University Malaya.

Results: The primary routes of exposure to AD are inhalation and dermal absorption. This will be correlated with urine sampling to determine the amount of exposure. Air and wipe samples will be collected at the Cytotoxic Drug Reconstitution laboratory (CDR) and hematology wards. Surfaces of the biosafety cabinets (BSC) counter top, refrigerator handle and floor will be wiped using non-woven swabs. At the hematology wards, surface samples will be done at the nurses’ stations, IV pole and floor. Urine samples will be collected to correlate the exposure between environmental samples and biological samples.

Conclusion: Sampling methods were developed. The data from this study serves as a reference for preventive measures while handling ADs to protect the healthcare personnel while at work.
Objectives: In recent years, the importance of ensuring that children’s medical care environments are places of growth and development has been advocated. Such environments differ greatly however between hospital. As a result, there is no shared meaning of the term “medical care environment” between medical staff, families, and those involved in construction. To address this issue, we created “the rhizome children’s ward environment” that connects the medical care environment to concrete devices and ideas and shares this knowledge on the Internet. This paper reports the results of scrutinization into both the validity of the site and the information dissemination method used, using visitor evaluation to a preview of the site’s release.

Methods: In the previous research, we investigated about the valuation basis of that children’s medical care environments. And we conducted hearing investigation to inspection of a pediatric ward / child hospital and the staff with reference to the research. This investigation collected the ideas and devices of the production of concrete environment, and checked the purpose of the production of environment in each hospital, etc. Next, we create the following sites based on this result; 1) Not using Flash etc., [Casuals] were simple and thought sociableness as important.2) [Designers] attached the motion using Flash at the time of operation of element selection etc. The evaluation to this site was obtained by the questionnaire for the student of the construction field.

Results: As a result, the user of the site understood the meaning and the idea of the production of environment which is the meaning of the whole site. And we can say that the site had obtained good evaluation.

Conclusion: It is necessary to tackle improvement in the ease of use of a site further by investigating report information in detail shortly, improvement in the ease of the ease of searching of information.

Keywords: medical care environment, the children’s ward, children’s medical care environment, rhizome site