

NASLOV PROJEKTA: Ekološki in higienski postopki pranja bolnišničnih tekstilij
Znanstvenoraziskovalni projekt med Republiko Slovenijo in Kraljevino Norveško

Trajanje projekta: 01.01.2011 – 31.12.2012

Partnerji:

1. Univerza v Mariboru, Fakulteta za zdravstvene vede

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2. Norske Vaskeriers Kvalitetstilsyn

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Kratek opis projekta:

Pralnice perejo različne tekstilije, zato je treba analizirati vodo pred uvajanjem odpadnih vod iz industrijskih pralnic v čistilne naprave ali za odvod direktno v vode. Oba partnerja bilateralnega projekta bosta zagotovila izmenjavo znanja in izkušenj na področju higiene bolnišničnih tekstilij kakor tudi izvedbe priprave skupnega evropskega projekta v bližnji prihodnosti. SI partner bo izvedel testiranje 5 postopkov pranja bolnišničnih tekstilij in implementiral okolju prijazne tehnologije pranja pri nižjih temperaturah in prenesel nove tehnologije v prakso. Drugi cilj SI partnerja je določanje nivoja higiene v pralnici z izvedbo sanitarno-mikrobiološke analize površin, tekstilij, strojev itd. na izbranih CCP v čistem delu pralnice. Pri testiranju razkuževalnega učinka pranja se bodo uporabili bioindikatorji: E. coli in P. aeruginosa. Izvedla se bodo testiranja odpadne vode (temperatura, prevodnost, pH, KPK, BPK5, vsebnost tenzidov, neraztopljenih snovi). Sanitarno-mikrobiološki testi higiene v pralnici se bodo izvedli z jemanjem odtisov z RODAC-agar ploščicami na omenjenih površinah in identifikacijo nastalih kolonij mikroorganizmov po inkubacijski dobi. Pri tem bomo tudi uporabili testne ploščice, ki jih uporablja norveški partner (PETRIFILM), da naredimo primerjavo metod. Norveški partner bo primerjal 5 pralnic s starimi pralnimi linijami in 5 pralnic z novimi pralnimi linijami glede na parametre higiene, kakovosti pranja ter porabe vode in energije. Pri tem bodo preverjali tudi porabo energije druge opreme. Preverjali bodo naslednje parametre: odpadna voda (temperatura, pH), higiena (CCP na čisti strani s kontaktnimi ploščicami), tekstilije (kontrola kemičnih poškodb vlaken 10 krat oprane tekstilne krpice z Danskega tehnološkega Inštituta). Slovenski partner bo izmenjal znanje o pripravi bioindikatorjev (E. faecium, S. aureus) za testiranje razkuževalnega učinka pranja v pralnicah. Pričakovan rezultat sodelovanja je testiranje in implementiranje okolju prijaznih

postopkov pranja bolnišničnih tekstilij in doseganje nižje porabe energije in onesnaževanja okolju ter višje javno zdravje. Pričakovan rezultat je tudi skupni znanstveni članek ali prispevek na konferenci.

PROJECT TITLE: Ecological and hygienic laundering procedures for hospital textile

DURATION: 01.01.2011 – 31.12.2012

PROJECT PARTNERS:

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Project Content:

Laundries wash very different types of textiles, therefore a water analysis of wastewaters before entering sewage purifying plants or directly entering waters, is necessary. Both project partners will ensure exchange of up-to-date knowledge and experience in the field of hygiene of hospital textiles as well as conduct discussions for preparation of a joint EU project in the near future. The Slovenian partner will conduct the testing of 5 different laundering procedures in laundries for hospital textiles and incorporate the implementation of environmental friendly laundering procedures with lower water consumption thus transferring state-of-the-art knowledge and technologies to practice. Another project goal of the Slovenian partner is determining the hygiene level in laundries by conducting sanitary-microbiological tests of surfaces, textiles, machinery etc. at the chosen control points in the clean area of laundries. The following new bioindicators will be used to test the disinfection effect of laundering procedures: *E. coli* and *P. aeruginosa* as two common pathogens found in laundry wastewaters. Testing of wastewater will also be executed (temperature, conductivity, pH-values, COD, BOD, surfactants, sedimented substances). Sanitary-

microbiological tests of hygiene in the laundries will be conducted by surface sampling using RODAC-agar plates. At the same time we will also test the plates used by the Norwegian partner (Petrifilm) to compare both testing methods. The Norwegian partner would compare for 5 laundries with old cbw's with 5 laundries with new cbw's with regard to parameters of hygiene, waste water, laundry quality and of course water and energy consumption with regard to energy also other equipment (for saving energy) may interfere with the result. The following parameters would be controlled: waste water (temperature and pH); hygiene (CCPs clean side with contact plates); textiles (control of the chemical degeneration of fibres, with 10x test pieces from the Danish Technological Institute). The Slovenian partner would exchange knowledge on preparation of standard bioindicators (*E. faecium* and *S. aureus* for testing the disinfection effect in laundries. An expected result of the bilateral cooperation is testing and implementing environmental friendly laundering procedures for hospital textiles and achieving lower water consumption lower energy consumption, lower environment pollution and higher public health. An expected result of the bilateral cooperation is also a joint scientific original article in a journal or a contribution at a scientific conference.