

**NASLOV PROJEKTA: Vpeljava biološke aplikacije aparature Morapex za ocenjevanje
higiene bolnišničnih tekstilij**

TRAJANJE: 01.06.2012 – 31.05.2013

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VSEBINA PROJEKTA:

Rezultati različnih preteklih študij potrjujejo porast bolnišničnih okužb in porast odpornosti pri mikroorganizmih. Zato je bolnišnična higiena izjemnega pomena. Eden od možnih vzrokov za izbruh bolnišničnih okužb so neprimerno dezinficirane tekstilije. Oprane bolnišnične tekstilije ne smejo vsebovati mikroorganizmov, ki povzročajo bolezni, saj jih uporabljajo bolniki z oslabljenim imunskim sistemom, le ti pa morajo biti zaščiteni pred okužbami z neprimerno dezinficiranimi tekstilijami. Standardne sanitarno mikrobiološke metode za preverjanje bolnišničnih tekstilij se izvajajo s časovno potratnimi mikrobiološkimi metodami, ki vključujejo vzorčenje z RODAC agar ploščami, čemur sledi 24 urna inkubacija in nadaljnja identifikacija mikroorganizmov na podlagi njihovih fenotipskih lastnosti. Te metode so dolgotrajne, drage, sledljivost rezultatom pa je slaba. Zato je potrebno vpeljati hitre metode, ki omogočajo hiter dostop do rezultatov in tako možnost hitrega ukrepanja. Metoda izpiranja mikroorganizmov iz tekstilij je primerno nadomestilo za vzorčenje z RODAC agar ploščami, Morapex aparatura pa ponuja možnost nedestruktivne metode izpiranja. Iz pridobljenega vzorca je možna identifikacija posameznega mikroorganizma s hitrimi molekularnimi metodami. Te metode so se izkazale kot zelo uspešne v okviru klinične

mikrobiologije, saj rezultate dobimo hitro, z manj dela, rezultati pa so tudi bolj specifični. Kljub temu pa njihova uporaba za namen preverjanja higiene tekstilij v bolnišnicah in bolnišničnih pralnicah še ni široko sprejeta.

Vključevanje študentov v raziskovalno delo

Trije študenti dodiplomskega študijskega programa Zdravstvena nega, 1. stopnja so vključeni v raziskovalno delo za diplomske naloge v okviru projekta Morapex.

PROJECT TITLE: Implementing biological application of the Morapex device for evaluating hygiene of hospital textiles

DURATION: 01.06.2012 – 31.05.2013

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PROJECT PROPOSAL

Results of different recent studies confirm the increase of hospital acquired infections and the increase of microbial resistance. Therefore hospital hygiene is of great importance. One of the possible causes of hospital acquired infections are inappropriately disinfected textiles.

Washed hospital textiles shouldn't contain microorganisms that cause diseases because their users are patients with impaired immune systems and should therefore be protected from infections with inappropriately disinfected textiles. Standard sanitary microbiological methods for controlling hospital textiles are conducted using time-consuming classical microbiological methods that include sampling using RODAC agar plates followed by 24 hour incubation and further microbial identification based on phenotype characteristics of microorganisms. These methods are time-consuming, expensive and also the traceability of the results is poor. Therefore it is necessary to implement quick methods that enable quick availability of results and thus the possibility for quick actions. The method of eluting microorganisms from textiles is an appropriate substitute for the sampling with RODAC agar plates and Morapex device offers the possibility of non-destructive elution method. From the obtained eluate it is possible to conduct the identification of specific microorganisms with quick molecular methods. These methods have proven to be very successful in the frame of clinical microbiology as results are produced quickly, the work load is lower and the results are more specific. However their implementation for the hygiene control of textiles in hospitals and hospital laundries is not widely accepted.

Research work

Three students of the Nursing care 1st degree Bologna study programme are conducting research work for their diploma thesis in the frame of the Morapex project.