
Zaključak: Vrlo je važno educirati i informirati liječnike o pravilnom skladištenju cjepiva, posebice u ljetnim mjesecima i za vrijeme velikih vrućina. U slučaju nepravilnog skladištenja, velika je opasnost od smanjene učinkovitosti cjepiva, što može dovesti do neadekvatne zaštite cijepljene djece.

Ključne riječi: Cjepivo, stabilnost, visoka temperatura, učinkovitost, djeca

DECREASE IN EFFICACY OF CHILD VACCINES DUE TO HIGHER ENVIRONMENT TEMPERATURES

Lorena Karla Rudež¹, Tin Šklebar¹, Kristian Dominik Rudež³, Robert Likić^{1,2}

¹School of Medicine, University of Zagreb, Zagreb, Croatia

²University Hospital Zagreb, Zagreb, Croatia

³Health Center Borongaj, Health Center Zagreb - Istok, Zagreb, Croatia

Abstract

Introduction: During summer months, many medicines are exposed to inadequate storage temperatures, which can decrease their efficacy. Vaccines are listed among the group of medicines that are most sensitive to storage in high temperatures.

Methods: A list of mandatory childhood vaccines was obtained from the Croatian Institute for Public Health. Those vaccines have been compared with regard to their described stability at different environmental temperatures, according to information from the World Health Organization.

Results: Majority of vaccines are most stable and best stored at temperatures between 2 and 8 °C. At high temperature exposure, the most sensitive vaccine is the inactivated vaccine for poliovirus, which can remain stable for only a few weeks if stored at temperatures of 20°C or higher. When stored at 37°C, the MMR vaccine is stable for two weeks, while the Pertussis vaccine retains its effect for only a week. At that temperature Hepatitis B vaccine loses 20% of its effectiveness. At 45°C it lasts no more than a few days, while other listed vaccines are either completely unstable, or inadequately effective at temperatures that high. Out of the listed vaccines, the most stable is the tetanus and diphtheria toxoids one which can be stored at temperatures of up to 55°C.

Conclusion: It is of utmost importance to educate and inform physicians about proper ways of storing vaccines, especially during the summer months. In case of inappropriate storage, there is a risk of diminished effect of vaccines, which can lead to inadequate immunization of children.

Key words: Vaccine, stability, high fever, efficacy, children

KONDUKTIVNI POREMEĆAJ MEĐU DJECOM S PREKOMJERNOM TJELESNOM MASOM I DEBLJINOM: SUSTAVNI PREGLED LITERATURE I META-ANALIZA

Danijela Nujić^{1,2}, Josip Milas², Dubravka Holik¹, Ivan Miškulin², Stjepan Rudan¹, Andrea Milostić-Srb¹

¹Fakultet za dentalnu medicinu i zdravstvo, Sveučilište J.J. Strossmayera u Osijeku, Hrvatska

²Medicinski fakultet, Sveučilište J.J. Strossmayera u Osijeku, Hrvatska

Sažetak

2016. je godine procijenjeno kako je broj djece i adolescenata s prekomjernom tjelesnom masom (ptm) i debljinom (deb) u zadnjih 40 godina porastao čak 10 puta. Mladi koji pate od prekomjerne tjelesne mase i debljine češće obolijevaju od psihičkih poteškoća. Neke studije su pokazale povezanost između konduktivnog poremećaja i debljine, no druge studije ne pokazuju takav rezultat. Cilj je ovog sustavnog pregleda i meta-analize bio proučiti povezanost konduktivnog poremećaja s ptm i deb među djecom i adolescentima. Sustavno je pretraživanje literature provedeno 31. listopada 2019. u bazama: MEDLINE preko OVID-a, PsycINFO i PsycARTICLES preko EBSCOhost, SCOPUS i OpenGrey. Uključene su