

Sağlık Çalışanlarının Taranması ve Bağışıklanması

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05.05.2017

Koç Üniversitesi

6331 SAYILI İŞ SAĞLIĞI VE GÜVENLİĞİ KANUNU (TC Çalışma ve Sosyal Güvenlik Bakanlığı-2012)

Sağlık gözetimi (Syf:54-55)

MADDE 15

(1) İşveren;

- a) Çalışanların işyerinde maruz kalacakları sağlık ve güvenlik risklerini dikkate alarak sağlık gözetimine tabi tutulmalarını sağlar.
- b) Aşağıdaki hallerde çalışanların sağlık muayenelerinin yapılmasını sağlamak zorundadır:
 - 1) İşe girişlerinde,
 - 2) İş değişikliğinde,
 - 3) İş kazası, meslek hastalığı veya sağlık nedeniyle tekrarlanan işten uzaklaşmalarından sonra işe dönüşlerinde talep etmeleri halinde,
 - 4) İşin devamı süresince, çalışanın ve işin niteliği ile işyerinin tehlike sınıfına göre Bakanlıkça belirlenen düzenli aralıklarla.

6331 SAYILI İŞ SAĞLIĞI VE GÜVENLİĞİ KANUNU (TC Çalışma ve Sosyal Güvenlik Bakanlığı-2012)

- (2) Tehlikeli ve çok tehlikeli sınıfta yer alan işyerlerinde çalışacaklar, yapacakları işe uygun olduklarını belirten sağlık raporu olmadan işe başlatılamaz.
- (3) Bu kanun kapsamında alınması gereken sağlık raporları, işyeri sağlık ve güvenlik biriminde veya hizmet alınan ortak sağlık ve güvenlik biriminde görevli olan işyeri hekiminden alınır. Raporlara itirazlar Sağlık Bakanlığı tarafından belirlenen hakem hastanelere yapılır, verilen kararlar kesindir.
- (4) Sağlık gözetiminden doğan maliyet ve bu gözetimden kaynaklı her türlü ek maliyet işverence karşılanır, çalışana yansıtılamaz.
- (5) Sağlık muayenesi yaptırılan çalışanın özel hayatı ve itibarının korunması açısından sağlık bilgileri gizli tutulur.

Halk Sağlığı Alanında 20. YY'da En Büyük Başarılar

- **Aşılar**
- Motorlu araç güvenliği
- İşyeri güvenliği
- Enfeksiyon hastalıklarının kontrolü
- Koroner kalp hastalığı ve inmeye bağlı ölümlerde azalma
- Sağlıklı yiyeceklere ulaşma
- Anne ve Çocuk sağlığında gelişmeler
- Aile planlaması
- İçme suyunun klorlanması
- Tütün kullanımının zararlarının gösterilmesi

Sağlık Çalışanı

- Doktorlar
- Diş Hekimleri
- Hemşireler
- Eczacılar
- Fizyoterapistler
- Acil Servis Görevlileri
- Laboratuvar Çalışanları
- Adli Tıp (Otopsi) Personeli
- Öğrenciler
- Teknisyenler
- Yönetici ve İdari Personel
- Tıbbi Sekreterler
- Temizlik ve Çamaşırhane Personeli
- Diyetisyenler
- Mutfak ve Yemek Personeli
- Güvenlik Görevlileri
- Ambulans Şöforleri
- Teknik Servis
- Telefon ve Bilişim Operatörleri
- Berberler



- * Standart İzolasyon Önlemleri
- * Bulaş Yoluna Ait Ek Önlemler
- * Bağışıklama
- * Antimikrobiyal profilaksi

Sağlık Çalışanlarının Bağışıklanması

- Ulusal “hastane aşı politikası” olmalı
- Sağlık çalışanlarının;
 - İşe girişte,
 - İş değişikliği yaptığında,
 - Herhangi bir nedenle işten uzaklaştırılıp geri döndüğünde,
 - Bakanlıkça belirlenen aralıklarda gerektiğinde aşı önerilerinde bulunulmalıdır.
- Aşı kayıtları bilgisayar ortamında saklanmalıdır.

Sağlık Çalışanlarını Neden Aşılatalım?

- Kendisini, ailesini, yakın çevresini ve hastaları korumak,
- İş gücü kaybının azalması, hem sağlık çalışanına hem de ülke ekonomisine katkı sağlar,
- Etkin ve başarılı bir aşılama programı, salgın kontrolü ve hastaların tedavilerinden daha maliyet etkindir.

Sağlık Çalışanlarına Aşı Önerileri

ml/rro00/at.htm

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A-Z Index [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) #

Morbidity and Mortality Weekly Report (MMWR)

MMWR

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Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

Recommendations and Reports
November 25, 2011 / 60(RR07);1-45

Özel Durumlar

- Meningokok
- Polio
- Tifo

Rutin Öneri

- Hepatit B
- İnfluenza
- KKK
- Boğmaca
- Suçiçeği

David T. Kuhar, MD³

HCP (i.e., those with no history of vaccination or lack of documentation of immunity) during an outbreak situation and can help reduce costs and disruptions readily be made available to future employers.

HICPAC has encouraged any facility or organization that provides direct patient care to formulate a comprehensive vaccination policy for all HCP (3). The American Hospital Association has endorsed the concept of vaccination programs for both hospital personnel and patients (8). To ensure that all HCP are up to date with respect to recommended vaccines, facilities should review HCP vaccination and immunity status at the time of hire and on a regular basis (i.e., at least annually with consideration of offering needed vaccines, if necessary, in conjunction with routine annual disease-prevention measures (e.g., influenza vaccination or tuberculin testing). These recommendations (Tables 2 and 3) should be considered during policy development. Several states and health-care facilities have established requirements relating to assessment of vaccination status and/or administration of one or more vaccines for HCP (9,10). Disease-specific outbreak control measures are described in this report and elsewhere (3,11,12). All HCP should adhere to all other recommended infection-control guidelines, whether not they are individually determined to have immunity to a vaccine-preventable disease.

Methods

In 2008, the ACIP Immunization of Health-Care Personnel Work Group (the Work Group) was formed as a subgroup of the ACIP Adult Immunization Work Group to update the previously published recommendations for immunization of HCP. The Work Group comprised professionals from academic medicine (pediatrics, family medicine, internal medicine, occupational and environmental medicine, and infectious disease); federal and state public health professionals; and liaisons from the Society for Healthcare Epidemiology of America and HICPAC. The Work Group met monthly, developed an outline for the report, worked closely with subject matter experts at CDC (who developed, revised, and updated sections of the report), and provided subsequent critical review of the draft documents. The approval of the Work Group was to summarize previously published ACIP recommendations and not to make new recommendations or policies; a comprehensive list of publications containing the various vaccine-specific recommendations is provided (Table 1). In February 2011, the updated report was presented to ACIP, which voted to approve it.

The recommendations for vaccination of HCP are presented below by disease in two categories: 1) those diseases for which routine vaccination or documentation of immunity is recommended for HCP because of risks to HCP in their work settings and, should HCP become infected, to the patients they serve and 2) those diseases for which vaccination of HCP might be indicated in certain circumstances. Vaccines recommended in the first category are hepatitis B, seasonal influenza, measles, mumps, and rubella, pertussis, and varicella vaccines. Vaccines in the second category are meningococcal, typhoid, and polio vaccines. Except for influenza, all of the diseases prevented by these vaccines are notifiable at the national level (13). Main changes from the 1997 ACIP recommendations have been summarized (Box).

Diseases for Which Vaccination Is Recommended

On the basis of documented nosocomial transmission, HCP are considered to be at substantial risk for acquiring or transmitting hepatitis B, influenza, measles, mumps, rubella, pertussis, and varicella. Current recommendations for vaccination are provided below.

Hepatitis B

Background

Epidemiology and Risk Factors

Hepatitis B is an infection caused by the hepatitis B virus (HBV), which is transmitted through percutaneous (i.e., breaks in the skin) or mucosal (i.e., direct contact with mucous membranes) exposure to infectious blood or body fluids. The virus is highly infectious; for nonimmune persons, disease transmission from needlestick exposure is up to 100 times more likely for exposure to hepatitis B e antigen (HBeAg)-positive blood than to HIV-positive blood (14). HBV infection is a well recognized occupational risk for U.S. HCP and globally. The risk for HBV is associated with degree of contact with blood in the work place and with the hepatitis B e-antigen status of the source persons (15). The virus is also environmentally stable, remaining infectious on environmental surfaces for at least 7 days (16).

In 2009 in the United States, 3,371 cases of acute HBV infection were reported nationally, and an estimated 38,000 new cases of HBV infection occurred after accounting for underreporting and underdiagnosis (17). Of 4,519 persons reported with acute HBV infection in 2007, approximately 40% were hospitalized and 1.5% died (18). HBV can lead to chronic infection, which can result in cirrhosis of the liver, liver failure, liver cancer, and death. An estimated 800,000–1.4 million

SAĞLIK ÇALIŞANLARINDA GÜNCEL AŞI ÖNERİLERİ

Başak DOKUZOĞUZ

Ankara Num

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ÖZET

Sağlık çalışanları enfeksiyon risklerinin maliyet etkin bir şekilde en aza indirilmesi bağışıklama programı ile sağlamaktadır. Bu amaçla, sağlık çalışanının mesleğine ve yaptığı işe göre riskleri değerlendirilerek oluşturulmaktadır.

Sağlık çalışanlarına temel olarak uygulanması öngörülen aşılarda hepatit B, influenza, kızamık, kızamıkçık, kabakulak, suçiçeği ve boğmacadır. Meningokok, tifo, polio, tüberküloz, hepatit A aşılıları özel durumlarda uygulanması gerekebilen aşılar. Veba, kuduz, kolera, tifüs ve sarı humma'ya karşı aşı endikasyonları ancak hastadan maruz kalma veya riskli laboratuvar çalışması söz konusu ise ayrıca değerlendirilmelidir.

Anahtar sözcükler: aşı, aşılama, bağışıklık, sağlık çalışanı

SUMMARY

Updated Vaccine Recommendation in Health Care Workers

The immunization program provides a cost effective way to minimize occupational risk of infection in health care workers. Immunization programs are formed by evaluating the risks of health care workers according to their professions and

**Ek Olarak;
Tüberküloz
Hepatit A
Kuduz
Veba
Kolera
Tifüs
Sarı Humma**

Sağlık Çalışanlarına Aşı Önerileri

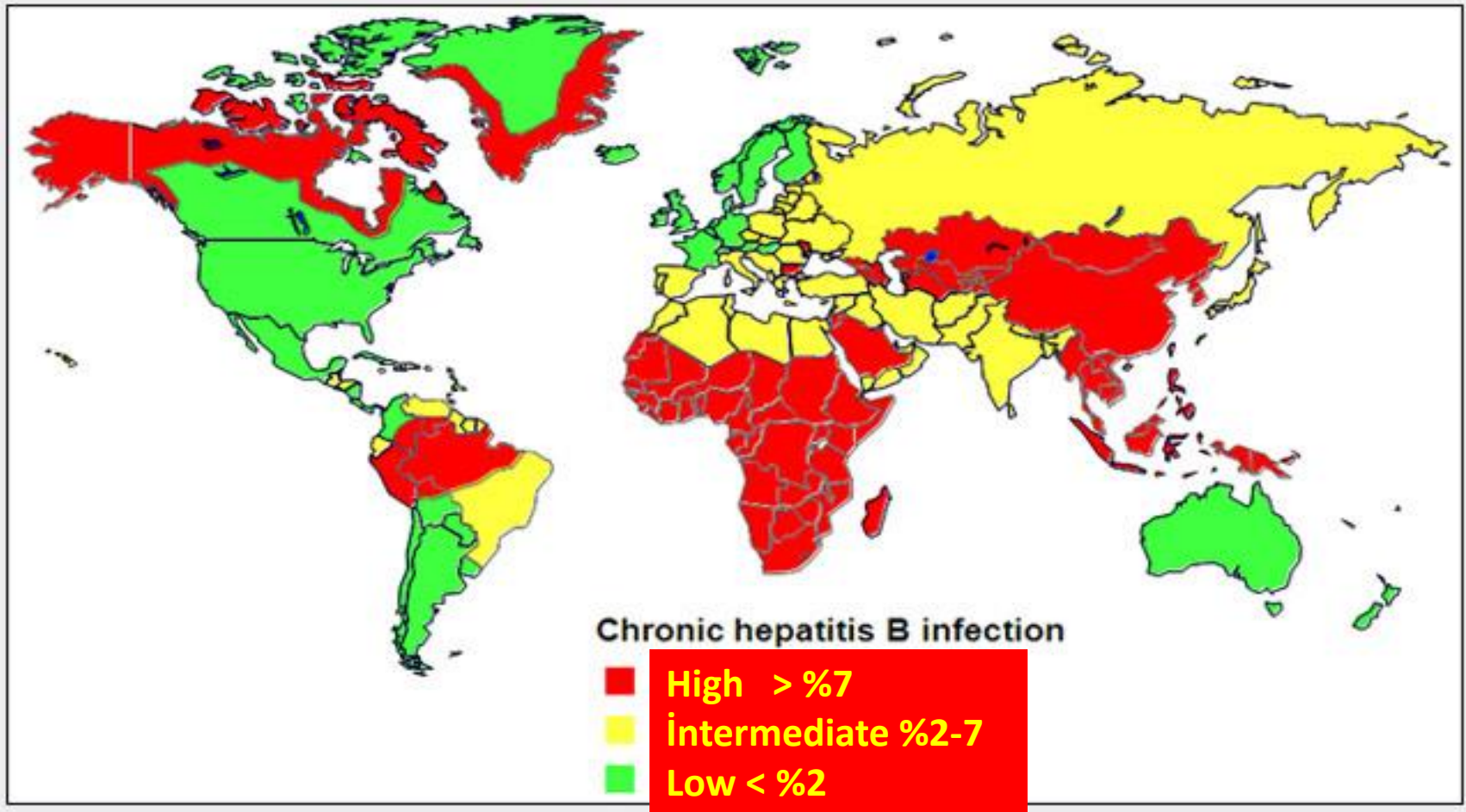
Rutin Öneriler:

- Hepatit B
- İnfluenza
- Boğmaca, **Difteri, Tetanoz**
- Kızamık, Kızamıkçık, Kabakulak
- Suçiçeği

Özel durumlarda:

- Meningokok
- Polio
- Tifo
- **BCG**
- **Hepatit A**
- **Pnömonokok**
- **Kuduz**

Hepatitis B



VİRAL HEPATİTLERİN ÜLKEMİZDEKİ DEĞİŞEN EPİDEMİYOLOJİSİ

Selma TOSUN

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ÖZET

Ülkemizde viral hepatitlerin epidemiyolojisi dünyada olduğu gibi değişmektedir. Tüm viral hepatit etkenlerinin prevalansında (Hepatit A, B, C, delta ve E) özellikle batı bölgelerinde belirgin olmak üzere giderek azalma gözlenmektedir.

Anahtar sözcükler: epidemiyoloji, Türkiye, viral hepatitler

böbrek transplantasyon hastalarında ise % 2.9 olarak bildirilmiştir^(1,16).

Toplumun değişik kesimlerinde HBV göstergelerini araştıran çalışmalarda ise 2000-2005 yılları arasını kapsayan dönemde HBsAg pozitifliği % 1.3 ile % 13.6 arasında; anti-HBs pozitifliği de % 10.1 ile % 46.1 arasında bildirilmiştir^(7,14). Toplum genelini içeren çalışmalarda kitlesel aşılama öncesi ve sonrası dönemde HBV prevalansı açısından anlamlı bir farklılık saptanmamaktadır^(7,14).

HBsAg pozitif gebelerden bebeğe geçiş, oldukça önemli bir bulaşma yolu olduğu için gebelerde HBV yayılımı araştırılmaktadır. Bu konuda yapılan çalışmalarda gebelerde HBsAg pozitifliğinin % 1.9-% 9.4 arasında (ortalama % 4.3)

pozitifliği söz konusu olduğunda tek başına aşılması yeterli olmamakta, mutlaka HBIG de yapılması gerekmektedir.

Son yıllarda ülkemizin tümünü kapsayan bazı önemli epidemiyolojik çalışmalar gerçekleştirilmiştir. Ülke genelini kapsayan toplum tabanlı bir viral hepatit prevalans çalışması olarak ve Türk Karaciğer Araştırmaları Derneği (TKAD) tarafından 2008-2011 yılları arasında gerçekleştirilen çalışmada 18 yaş üzeri 5471 kişiye ulaşılmıştır. Sonuçlar değerlendirildiğinde HBsAg pozitifliği % 4, anti-HBc total pozitifliği % 30.6, anti-HBs pozitifliği ise % 32 olarak saptanmıştır. HBsAg pozitifliğinin batı bölgelerinde daha düşük olduğu ama İç Anadolu, Doğu ve Güneydoğu Anadolu bölgelerinde belirgin olarak yüksek olduğu belirlenmiştir. Ayrıca HBsAg pozitifliğinin yaşla artış gösterdiği de belirlenmiştir⁽¹⁷⁾.

Gebelerde HBsAg pozitifliği % 4.3

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Gastroenterology Elsewhere

Seroprevalance of hepatitis B and C infections in Turkey

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Turk J Gastroenterol 2017; 28: 147-148

DOI: 10.5152/tjg.2017.1710021

**Hepatit B prevalansı %2-7
Türkiye Orta Endemik Bölge**

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Bezmialem Vakıf Üniversitesi Tıp Fakültesi'ne Başvuran Hastalarda HBsAg, Anti-HBs ve Anti-HCV Seroprevalansı

HBsAg, Anti-HBs and Anti-HCV Seroprevalence of the Patients Applied to the Medical Faculty of Bezmialem Foundation University

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ÖZET

Amaç: Hepatit B ve hepatit C virüsü enfeksiyonları halen ülkemiz için en önemli sağlık problemlerinden biri olmaya devam etmektedir. Bu çalışmada Kasım 2011 ve Mayıs 2013 tarihleri arasında Bezmialem Vakıf Üniversitesi Tıp Fakültesi Hastanesi'ne başvuran hastalarda HBsAg, anti-HBs ve anti-HCV pozitiflik oranının belirlenmesi amaçlandı.

Gereç ve Yöntemler: Hastalardan alınan kan örneklerinde hepatit B yüzey antijeni (HBsAg), hepatit B antikoru (anti-HBs) ve HCV antikoru (anti-HCV) testleri kemiluminesans immünassay yöntemi (Advia Centaur, Siemens, Almanya) ile çalışılmıştır.

Bulgular: Laboratuvarımızda toplam 53,593 hastaya HBsAg, 22,300 hastaya Anti-HBs ve 39,877 hastaya Anti-HCV çalışıldı ve sırasıyla %5,5, %42,2, %1,3 oranında seropozitiflik saptandı.

Sonuç: Bölgemizde hepatit B ve C virüsü seropozitifliği, ülkemizin diğer bölgelerindeki seropozitiflik oranlarıyla benzerdir. (Viral Hepatit, 2013; 19(3): 106-9)

Anahtar Kelimeler: HBsAg, Anti-HBs, Anti-HCV, seroprevalans

ABSTRACT

Objective: The infections caused by hepatitis B and hepatitis C virus are still remain one of most important health problems for our country. The purpose of this study was to determine the frequency of HBsAg, anti-HBs and anti-HCV positivity in the patients who were admitted to the Research Hospital of the Medical Faculty of Bezmialem Vakıf University between November 2011 and May 2013.

Materials and Methods: The blood samples were tested for HBsAg, Anti-HBs and anti-HCV by chemiluminescent microparticle immunoassay (CMIA) (Advia Centaur, Siemens, Almanya)

Results: In our laboratory serologically 53,593 patients are tested for HBsAg, 22,300 patients are tested for Anti-HBs and 39,877 patients are tested for Anti-HCV. In our study 5.5%, 42.2% and 1.3% of the patients are found to be seropositive for

Anti-HBs seropozitifliği: %42.2

Key words: HBsAg, Anti-HBs, Anti-HCV, seroprevalance

RESEARCH ARTICLE

Viral Hepat J 2013; 19: 11-14

Received Date:

Accepted Date:

DOI: 10.4274/Vhd.69188 PDF

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*

Seroprevalences of Hepatitis B, Hepatitis C, HIV of the Healthcare Workers in the Gaziantep University Sahinbey Research and Training Hospital

Objective: Hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) infections, are an important health problem that threatens human health. Healthcare workers have an increased risk of being infected with a lot of pathogens. In this study it was aimed to investigate the seroprevalences of HBV, HCV and HIV among healthcare workers in Gaziantep University Medical Faculty Sahinbey Research and Training Hospital.

Materials and Methods: One hundred eleven nurses and 88 staff (cleaning staff, emergency medical technician) for a total of 199 healthcare workers in serum samples for hepatitis B surface antigen (HBsAg), antibody against hepatitis B surface (anti-HBs), HCV antibody (anti-HCV) and HIV antibody (anti-HIV) markers were measured by ELISA method based on the method of chemiluminescent immunoassay. Participants in the study, a questionnaire containing questions about hepatitis B vaccine was applied.

Results: One hundred eleven nurses of mean age of 28.5 ± 4.24 years; mean age of 88 staff personnel was 31.7 ± 5.8 years were included in the study. None of these patients found HCV antibody and HIV antibody. A total of 88 nurses, only one (0.9%) was positive for HBsAg. HbsAg positivity was 0.5% among all healthcare workers included in the study. It was also seen that 64 staff (72.72%) were positive for HBsAg. Anti-HBs was found to be negative as 11.71% in nurses and 27.27% in staff. HIV was found to be negative among 20 nurses and 10 staff. Although they indicated that they had been vaccinated against HBV.

Conclusion: Healthcare workers who are at high risk of infection should be vaccinated. The study is planned to determine the seroprevalence of HCV and HIV.

**Sağlık Personeli
Anti-HBs: %81.4**

**Sağlık Personeli
HBsAg: %0.5**

Bir Devlet Hastanesindeki Sağlık Çalışanlarında Hepatit A, B, C ve HIV Enfeksiyonu Seroprevalansı

Seroprevalences of HBV, HAV, HCV and HIV Infection among Health Personnel in a State Hospital

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Özet

Amaç: Bu çalışmada, bir devlet hastanesindeki sağlık çalışanlarında HBV, HAV, HCV ve HIV enfeksiyonu seropozitifliğinin araştırılması amaçlandı.

Yöntemler: 2012-2013 yılları arasında hastanemizde çalışan 586 sağlık personeline ait kayıtlar retrospektif olarak incelendi. Tarama amacıyla alınan kan örneklerinde HBsAg, anti-HBs, anti-HCV, anti-HAV ve anti-HIV kemilüminesans esasına dayanan "enzyme-linked immunosorbent assay" (ELISA) yöntemiyle çalışıldı.

Bulgular: Personelimizin 208 (%35.5)'i erkek, 378 (%64.5)'i kadındı olup, yaş ortalaması 35.78±8.76 (minimum 18, maksimum 64) yılı. Çalışmaya katılan 586 sağlık personeline ait kayıtlar retrospektif olarak incelendi. Tarama amacıyla alınan kan örneklerinde HBsAg, anti-HBs, anti-HCV, anti-HAV ve anti-HIV kemilüminesans esasına dayanan "enzyme-linked immunosorbent assay" (ELISA) yöntemiyle çalışıldı. Personelimizin 504 (%86)'ünde anti-HBs pozitifliği tespit edilirken, 5 (%0.9)'ünde HBsAg pozitifliği, 1 (%0.2)'inde anti-HCV pozitifliği tespit edildi. Anti-HAV pozitifliği tespit edilmedi. Sağlık çalışanlarının hastalıklardan korunması için bütün hastalarda standard enfeksiyon kontrol önlemlerine uyulması önemlidir. *Klinik Dergisi 2013; 26(2): 64-7.*

Anahtar Sözcükler: Sağlık çalışanları, hepatit A, hepatit B, hepatit C, HIV, seroepidemiyolojik çalışmalar.

Abstract

Objective: The aim of this study was to determine the seroprevalence of HAV, HBV, HCV and HIV infection among health personnel in a state hospital.

Methods: Medical records of 586 health personnel who worked between 2012 and 2013 in our hospital were analyzed retrospectively. Serum samples were tested for HBsAg, anti-HBs, anti-HCV, anti-HAV, anti-HIV markers by "enzyme-linked immunosorbent assay" (ELISA) method based on the method of chemiluminescent immunoassay.

Results: The staff comprised 208 (35.5%) male, and 378 (64.5%) women workers. The mean age was 35.78±8.76 (minimum 18, maximum 64) years. There were 282 (48.1%) nurses, 99 (16.9%) doctors, 102 (17.4%) cleaning staff, 47 (8%) anesthesia technicians and 56 (9.6%) laboratory technicians. The divisions of the workers were as follows: 125 (21.3%) were working at internal services, 204 (34.8%) at the operating room, 98 (16.7%) at intensive care units, 61 (10.4%) at emergency room and 28 (4.8%) at dialysis unit. While 504 personnel (86%) were positive for anti-HBs, only 5 (0.9%) were found positive for HBsAg. Only 1 (0.2%) cleaning staff was positive for anti-HCV. None was positive for anti-HIV. Anti-HAV has been studied in a total of 152 personnel, 109 (71.7%) of whom were positive. Anti-HBc IgG has been studied in a total of 250 personnel 7 (2.8%) of whom were positive.

Conclusions: Healthcare personnel who are at high risk of HBV, HAV, HCV, and HIV infection should be screened for viral hepatitis and those who are not immunized should be vaccinated against HBV and HAV. It is important to follow standard infection control precautions in all patients to prevent diseases transmitted by blood and through contact. *Klinik Dergisi 2013; 26(2): 64-7.*

Key Words: Health personnel, hepatitis A, hepatitis B, hepatitis C, HIV, seroepidemiologic studies.

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(Geliş / Received: 6 Temmuz / July 2013; Kabul / Accepted: 31 Temmuz / July 2013)

DOI: 10.5152/kd.2013.20



Hepatit B

- Klimik Derneği; Erişkin Bağışıklama Çalışma Grubu:
- Türkiye’de Hepatit B: %4
- Orta düzey ya da düşük orta düzey

Hepatit B Aşısının Etkinliği

- Yenidoğanda; %95 (≥ 10 mIU/mL)
- Etkinlik yaş ile paralel olarak azalır,
- > 40 yaş; %84
- Etkinliği azaltan faktörler;
 - İleri yaş (>40)
 - Erkek cinsiyet
 - Obezite
 - Sigara içilmesi
 - Kronik hastalık varlığı (KBY, DM.. vs)

Hepatit B Aşılaması

- 0., 1. ve 6. aylarda
- 20 µg/doz HBV aşısı
- Deltoit kasa, 90° girilir.
- Adjuvan olarak alüminyum, koruyucu olarak tiomersal içerir.
- 3 doz yapıldıktan 1 ay sonra anti-HBs seviyesi ≥ 10 mIU/mL ise rapelle ömür boyu gerek yok.
- Anti-HBs seviyesi < 10 mIU/mL ise aynı şemayı tekrarla
- Yine Anti-HBs seviyesi < 10 mIU/mL ise; AŞI CEVAPSİZ

Aşı Cevapsız?

- Bu kişiler Hepatit B enfeksiyonuna duyarlı kabul edilmeli,
- Riskli temasta Hepatit B immunglobulini ile profilaksi,
- Tespit edilemeyen düzeyde HBsAg pozitifliği ile birliktelik olabilir,
- Sağlık çalışanlarına HBsAg, Anti-Hbs ve Anti-Hbc IgG bakılmalıdır.

SAĞLIK ÇALIŞANLARINDA GÜNCEL AŞI ÖNERİLERİ

Başak DOKUZOĞUZ

Ankara Numune Eğitim ve Araştırma Hastanesi, Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Kliniği,
ANKARA
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ÖZET

Sağlık çalışanlarının mesleki enfeksiyon risklerinin maliyet etkin bir şekilde en aza indirilmesi bağışıklama programı ile sağlanmaktadır. Bağışıklama programları, sağlık çalışanının mesleğine ve yaptığı işe göre riskleri değerlendirilerek oluşturulmaktadır.

Sağlık çalışanlarına temel olarak uygulanması öngörülen aşılarda hepatit B, influenza, kızamık, kızamıkçık, kabakulak, suçiçeği ve boğmacadır. Meningokok, tifo, polio, tüberküloz, hepatit A aşılı özel durumlarda uygulanması gerekebilen aşılar. Veba, kuduz, kolera, tifüs ve sarı humma'ya karşı aşı endikasyonları ancak hastadan maruz kalma veya riskli laboratuvar çalışması söz konusu ise ayrıca değerlendirilmelidir.

Aşıya cevapsızlıkta; HBsAg saptanabilir değerin altında pozitif olabilir.

programı" dışında tutulmaktadır. Hepatit A'ya bağlı hastane salgınları bildirilmekle birlikte

(HBIG) ile profilaksi önerilmelidir⁽⁵⁾. Aşıya cevapsızlığın saptanabilir düzeyin altında HBs

200

Tablo 1. Temas sonrası Hepatit B profilaksisi.

Temas eden sağlık çalışanı	Kaynak HbsAg pozitif	HbsAg negatif	Bilinmeyen
Aşısız	1 doz HBIG uygulayın ve aşılamaya başlayın	Aşı şemasını uygulayın	Aşı şemasını uygulayın
Önceden aşı Aşı cevabı pozitif Aşı cevabı olmayan	Profilaksi gerekmez 2 doz HBIG uygulayın veya 1 doz HBIG uygulayın ve yeniden aşılamaya başlayın	Profilaksi gerekmez	Profilaksi gerekmez
Aşı cevabı bilinmeyen	Temaslıda Anti-HBs bakın - Anti-HBs <10mIU/ml ise 1 doz HBIG uygulayın ve yeniden aşılamaya başlayın - Anti-HBs ≥10mIU/ml ise Profilaksi gerekmez	Profilaksi gerekmez	Temaslıda Anti-HBs bakın - Anti-HBs <10mIU/ml ise 1 doz HBIG uygulayın ve yeniden aşılamaya başlayın - Anti-HBs ≥10mIU/ml ise Profilaksi gerekmez

HBIG dozu: 0.06 ml/kg

Ag varlığına bağlı olabileceği göz önüne alınmalıdır. HBs Ag pozitif olduğu bilinen veya şüpheli olan kan ile deri veya mukozal yoluyla temas eden sağlık çalışanlarına bağışıklık durumu göz

uygulanmaktadır. Canlı aşı (LAIV4) gebeler hariç 2-49 yaş arasındaki sağlıklı bireylere, IIV4 ürüne göre fark etmek üzere üç yaş veya altı aydan büyük herkese, ccIIV3 18 yaşın üstünde-

Aşı Cevapsızda

- İmmunstimülatör birlikte kullanımı??

İnfluenza

- Her 1-3 yılda bir epidemi,
- Her 10-30 yılda bir pandemi yapar.
- Dünyada her yıl 500 bin-1 milyon ölüm
- Korunmada aşı + kemoprofilaksi (zanamivir ve oseltamivir)
- Aşı koruyuculuğunu yaş ve immunsupresyon etkiler,
- Aşı; hastaneye yatışı tüm yaş gruplarında %71, >50 yaşında %77 azaltır (Klimik Derneği, Erişkin Bağışıklama Çalışma Grubu),
- Sağlık çalışanlarının hastalanmalarını ve buna bağlı işgücü kaybını önlemek için aşı yapılmalıdır,
- Sağlık çalışanından hastaya, hastadan sağlık çalışanına bulaşı engellemek için de aşı yapılmalıdır,

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Format: Abstract

Full text links

ELSEVIER
FULL-TEXT ARTICLE

J Hosp Infect. 2014 Mar;86(3):182-7. doi: 10.1016/j.jhin.2014.01.005. Epub 2014 Feb 6.

Can influenza vaccination coverage among healthcare workers influence the risk of nosocomial influenza-like illness in hospitalized patients?

Amodio E¹, Restivo V², Firenze A², Mammina C², Tramuto F², Vitale F².

Author information

Abstract

BACKGROUND: Approximately 20% of healthcare workers are infected with influenza each year, causing nosocomial outbreaks and staff shortages. Despite influenza vaccination of healthcare workers representing the most effective preventive strategy, coverage remains low.

AIM: To analyse the risk of nosocomial influenza-like illness (NILI) among patients admitted to an acute care hospital in relation to influenza vaccination coverage among healthcare workers.

METHODS: Data collected over seven consecutive influenza seasons (2005-2012) in an Italian acute care hospital were analysed retrospectively. Three different sources of data were used: hospital discharge records; influenza vaccination coverage among healthcare workers; and incidence of ILI in the general population. Clinical modification codes from the International Classification of Diseases, 9(th) Revision were used to define NILI.

FINDINGS: Overall, 62,343 hospitalized patients were included in the study, 185 (0.03%) of whom were identified as NILI cases. Over the study period, influenza vaccination coverage among healthcare workers decreased from 13.2% to 3.1% ($P < 0.001$), whereas the frequency of NILI in hospitalized patients increased from 1.1‰ to 5.7‰ ($P < 0.001$). A significant inverse association was observed between influenza vaccination coverage among healthcare workers and rate of NILI among patients (adjusted odds ratio 0.97, 95% confidence interval 0.94-0.99).

CONCLUSION: Increasing acute hospitals. This study the benefits of influenza va

**7 yıllık bir çalışma,
Sağlık çalışanlarında influenza aşılama oranı %13.2'den %3.1'e inmiş,
influenza benzeri hastalıktan hastaneye yatış %1.1'den, %5.7'ye çıkmış,
Hastane yönetimine öneri; influenza aşılama maliyet etkin**

İnfluenza

- Canlı Attenue İnfluenza Aşısı (LAIV3/ LAIV4)
- İnaktif Recombinant İnfluenza Aşısı (RIV3)
- İnaktif Hücre Kültürü İnfluenza Aşısı (IIV3)
 - **Yumurtada üretilmiş üçlü aşı (IIV3) IM (>6 ay)**
 - Hücre kültüründe üretilmiş üçlü aşı (ccIIV3)
 - **Yumurtada üretilmiş dörtlü aşı (IIV4) (≥3 yaş)**

İnfluenza

- Aşı 6 aydan büyük herkese önerilir.
- Kuzey yarım küre için en ideali Ekim ayıdır.
- İnaktive aşı IM yolla deltoit kasa,
- Canlı aşı intranasal yolla uygulanır.
- Guillain-Barre Sendromu ile bağlantı kurulmamış, her 1 milyon aşıda fazladan 1 Guillain-Barre bildirilmiş.
- İnfluenza hastalığında Guillain-Barre 4-7 kat daha sıktır.

Prevention and Control of Seasonal Influenza with Vaccines Recommendations of the Advisory Committee on Immunization Practices — United States, 2016–17 Influenza Season

Canlı İnfluenza Aşısı Kontrendikasyonları:

- 1- Aşıya veya içindekilere şiddetli alerjik reaksiyon,
- 2- Aspirin ya da salisilat kullanan çocuk ya da adölesanlar,
- 3- 2 ile 4 yaş arası astım tanısı almış çocuk, ebeveynleri, bakıcıları
- 4- İmmunsupresif kişiler ve bunlarla temas edenler
- 5- Gebeler,
- 6- Önceki 48 saatte influenza için antiviral tedavi alanlar

TABLE 2

Vaccine

IIV

RIV

LAIV

History of severe allergic reaction to any component of the vaccine^a or after a previous dose of any influenza vaccine

Concomitant aspirin or salicylate-containing therapy in children and adolescents

Children aged 2 through 4 years who have received a diagnosis of asthma or whose parents or caregivers report that a health care provider has told them during the preceding 12 months that their child had wheezing or asthma or whose medical record indicates a wheezing episode has occurred during the preceding 12 months

Children and adults who have immunosuppression (including immunosuppression caused by medications or by HIV)

Close contacts and caregivers of severely immunosuppressed persons who require a protected environment

Pregnancy

Receipt of influenza antiviral medication within the previous 48 hours

Moderate to severe illness with or without fever

History of Guillain-Barré syndrome within 6 weeks of receipt of influenza vaccine

Asthma in persons aged ≥ 5 years

Other underlying medical conditions that might predispose to complications after wild-type influenza infection (e.g., chronic pulmonary, cardiovascular [except isolated hypertension], renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus))

of influenza vaccine

of influenza vaccine

n.

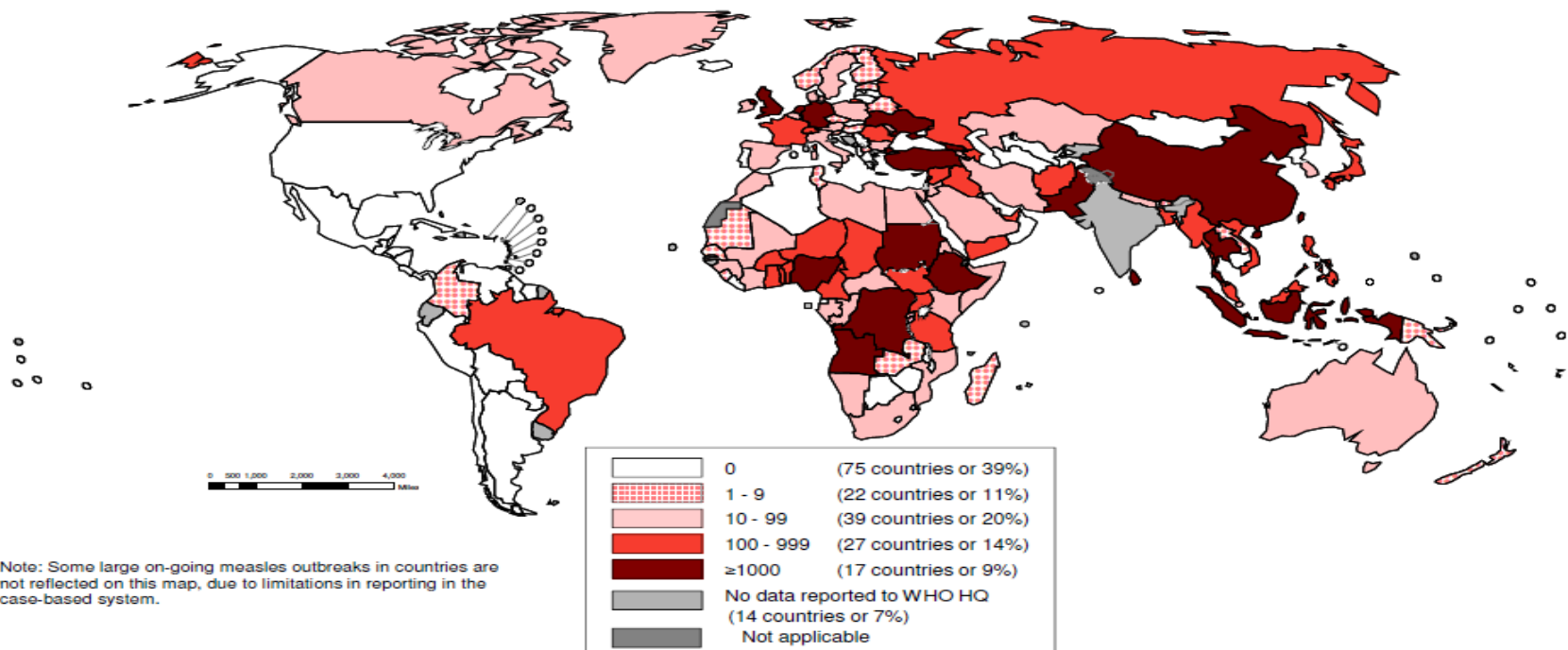
Kızamık (Measles)

KIZAMIK(MEASLES) bulguları



Kızamık

Number of Reported Measles Cases with onset date from Mar 2013 to Aug 2013 (6M period)



Note: Some large on-going measles outbreaks in countries are not reflected on this map, due to limitations in reporting in the case-based system.

Data source: surveillance DEF file
Data in HQ as of 8 October 2013

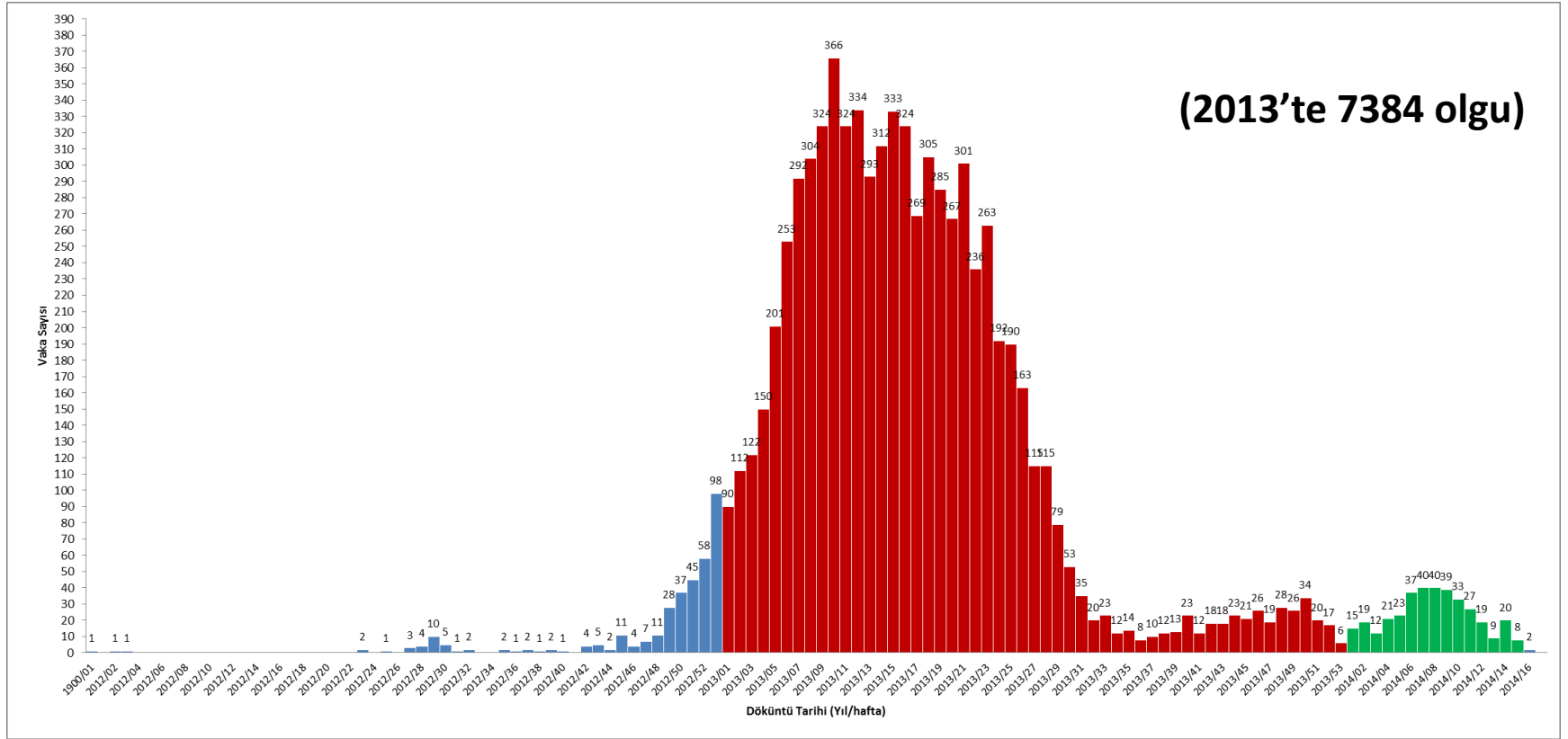
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. ©WHO 2013. All rights reserved.



T.C Sağlık Bakanlığı, Türkiye Halk Sağlığı Kurumu

Salgın Eğrisi

(Türkiye, 2012-2014) (n=8119)



2012



2013



2014



Volume 20, Issue 2

February 1999, pp. 115-119

Transmission of Measles Virus in Healthcare Settings During a Communitywide Outbreak

Karen R. Steingart ^(a1), Ann R. Thomas ^(a2), Clare A. Dykewicz ^(a3) and Stephen C. Redd ^(a4)

DOI: <https://doi.org/10.1086/501595>

Published online: 02 January 2015

Abstract

To describe the epidemiology of measles in medical settings and to evaluate the implementation and effectiveness of the 1989 Advisory Committee on Immunization Practices (ACIP) guidelines for measles immunization in healthcare workers (HCWs).

Confirmed cases of measles reported in Clark County, Washington, from March 14 to June 2, 1996, were analyzed for characteristics of cases occurring in medical settings. A questionnaire was used to assess employee immunization (95% response rate).

Reported measles cases and HCWs at community hospitals, primary-care medical facilities, a health-maintenance organization, and a multispecialty group practice.

Of 31 cases of measles, 8 (26%) occurred in HCWs, and 5 (16%) occurred in patients or visitors to medical facilities.

HCWs were more likely than the general population to have proof of measles immunity as defined by the ACIP guidelines. In HCWs compared to the general population in Clark County adults.

A survey of medical facilities in Clark County found that only 21% met ACIP recommendations and enforced their policies.

HCWs were at higher risk of measles than the adult population. Transmission of measles in medical settings was related to both deficiencies in, and lack of implementation of, the ACIP guidelines.

**Bir sağlık kuruluşunda görülen kızamık salgını
8 sağlık çalışanı, 5 hasta ya da ziyaretçi etkilenmiş**

Centers for Disease Control and Prevention (CDC)

Recommendations and Reports

BOX. Summary of main changes* from 1997 Advisory Committee on Immunization Practices/Hospital (now Healthcare) Infection Control Practices Advisory Committee recommendations for immunization of health-care personnel (HCP)

Hepatitis B

- HCP and trainees in certain populations at high risk for chronic hepatitis B (e.g., those born in countries with high and intermediate endemicity) should be tested for HBsAg and anti-HBc/anti-HBs to determine infection status.

Influenza

- Emphasis that all HCP, not just those with direct patient care duties, should receive an annual influenza vaccination
- Comprehensive programs to increase vaccine coverage among HCP are needed; influenza vaccination rates among HCP within facilities should be measured and reported regularly.

Measles, mumps, and rubella (MMR)

- History of disease is no longer considered adequate presumptive evidence of measles or mumps immunity for HCP; laboratory confirmation of disease was added as acceptable presumptive evidence of immunity. History of disease has never been considered adequate evidence of immunity for rubella.
- The footnotes have been changed regarding the recommendations for personnel born before 1957 in routine and outbreak contexts. Specifically, guidance is provided for 2 doses of MMR for measles and mumps protection and 1 dose of MMR for rubella protection.

Sağlık çalışanlarında hastalık öyküsü kızamık ve kabakulakta bağışıklığın yeterli kanıtı olarak kabul edilmemektedir. Hastalığın kabul edilebilir bağışıklığı, laboratuvar olarak doğrulanmalıdır

- written documentation with 2 doses of vaccine,
- laboratory evidence of immunity or laboratory confirmation of disease,
- diagnosis of history of varicella disease by health-care provider, or diagnosis of history of herpes zoster by health-care provider.

Meningococcal

- HCP with anatomic or functional asplenia or persistent complement component deficiencies should now receive a 2-dose series of meningococcal conjugate vaccine. HCP with HIV infection who are vaccinated should also receive a 2 dose series.
- Those HCP who remain in groups at high risk are recommended to be revaccinated every 5 years.

Abbreviations: HBsAg = Hepatitis B surface antigen; anti-HBc = hepatitis B core antibody; anti-HBs = hepatitis B surface antibody; Tdap = tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine; HIV = human immunodeficiency virus.

* Updated recommendations made since publication of the 1997 summary of recommendations (CDC Immunization of health-care workers: recommendations of the Advisory Committee on Immunization Practices [ACIP] and the Hospital Infection Control Practices Advisory Committee [HICPAC]. MMWR 1997;46[No. RR-18]).

training period and can vary throughout a person's career (1). Depending on the tasks performed, health-care or public safety personnel might be at risk for HBV exposure; in addition, personnel providing care and assistance to persons in outpatient settings and those residing in long-term-care facilities (e.g., assisted living) might be at risk for acquiring or facilitating transmission of HBV infection when they perform procedures that expose them to blood (e.g., assisted blood-glucose monitoring and wound care) (32–34).

A Federal Standard issued in December 1991 under the Occupational Safety and Health Act mandates that hepatitis B vaccine be made available at the employer's expense to all health-care personnel who are exposed occupationally to blood or other potentially infectious materials (35). The Federal Standard defines occupational exposure as reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that might result from the performance of an employee's duties (35). Occupational Safety and Health Administration

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Format: Abstract

Full text links

ELSEVIER
FULL-TEXT ARTICLE*Am J Infect Control.* 2006 Nov;34(9):583-7.

Measles, rubella, mumps, and varicella seroprevalence among health care workers in Turkey: is prevaccination screening cost-effective?

Celikbas A¹, Ergonul O, Aksaray S, Tuyguncu A, et al.

Author information

Abstract

BACKGROUND: To investigate the immunity to measles, rubella, mumps, and varicella (MMRV) in Turkey and to define an appropriate vaccination strategy.

METHODS: Voluntary HCWs from a tertiary care hospital were screened for specific IgG antibodies against MMRV.

RESULTS: Three hundred sixty-three HCWs participated in the study, 100 (31%) were physicians, 116 (33%) were nurses, 36 (10%) were housekeeping staff, and 23 (6%) were medical technicians. The proportion of HCWs who had antibodies against measles was 98.6%; rubella, 98.3%; mumps, 92.2%; and varicella, 98%. No association was found between the susceptibility to at least 1 of MMRV virus infections and gender, age, duration of work, profession, and department of work in analysis either among the whole study group, or each hospital. The positive predictive value for the history of varicella was 100%, whereas it was 92% for MMR. The cost of vaccination for varicella was significantly expensive without screening before vaccination. However, there was not much difference for MMR infections.

CONCLUSIONS: The results of this study suggest that vaccination of health care workers with negative history and vaccination of only seronegative HCWs was found to be appropriate.

PMID: 17097453 DOI: [10.1016/j.ajic.2006.04.213](https://doi.org/10.1016/j.ajic.2006.04.213)

[Indexed for MEDLINE]

Sağlık çalışanlarının bu hastalıklara karşı antikor oranları;

- Kızamık: %98.6
- Kızamıkçık: %98.3
- Kabakulak: %92.2
- Suçiçeği : %98

Suçiçeği için aşılama öncesi tarama yapmak maliyet etkin bulunmuş.

Sağlık Çalışanlarına MMR Aşısı Uygulama Şeması

Aşı Durumu	Doz Sayısı	Doz Aralığı
Hiç Aşılanmamış ise	2 doz	En az 4 hafta ara ile
12. aydan önce aşılanmışsa	2 doz	En az 4 hafta ara ile
12. aydan sonra tek doz aşılanmışsa	2 doz	En az 4 hafta ara ile
12. aydan sonra iki doz	1 doz	

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Recommendations and Reports

of their staff and others included in the facility vaccination program. In 2005 in Indiana, one hospital spent more than \$113,000 responding to a measles outbreak (142), and in 2008 in Arizona, two hospitals spent \$799,136 responding to and containing cases in their facilities (149). The Arizona outbreak response required rapid review of measles documentation of 14,844 HCP at seven hospitals and emergency vaccination of approximately 4,500 HCP who lacked documentation of measles immunity. Serologic testing at two hospitals among 1,583 HCP without documented history of vaccination or without documented laboratory evidence of measles immunity revealed that 138 (9%) of these persons lacked measles IgG antibodies (149).

Vaccine Effectiveness, Duration of Immunity and Seroprevalence Studies, and Vaccine Safety

Vaccine Effectiveness

MMR vaccine is highly effective in preventing measles with a 1-dose vaccine effectiveness of 95% when administered on or after age 12 months and a 2-dose vaccine effectiveness of 99% (135).

Duration of Immunity and Seroprevalence Studies

**1 doz MMR aşısı kızamık için %95 koruyuculuk sağlar.
> 12 ay 2 doz aşı %99 koruyuculuk sağlar.**

Studies among HCP in the United States during the measles resurgence in the late 1980s through early 1990s demonstrated that 4%–10% of all HCP lacked measles IgG antibodies (153–156). During the 2008 Arizona outbreak, of the 1,077 health-care providers born during or after 1957 without documented measles immunity, 121 (11%) were seronegative (149). In a study of measles seroprevalence among 469 newly hired HCP at a hospital in North Carolina who were born before 1957, and thus considered immune by age, who could not provide written evidence of immunity to measles, serologic testing indicated that six (1.3%) lacked measles IgG antibodies (157). Other serologic studies of hospital-based HCP indicate that 2%–9% of those born before 1957 lacked antibodies to measles (156,158–160).

A survey conducted during 1999–2004 found a seroprevalence of measles antibodies of 95.9% among persons in the U.S. population aged 6–49 years (161). The survey

indicated that the lowest prevalence, 92.4%, was among adults born during 1967–1976 (161). A 1999 study of U.S. residents aged ≥20 years determined that 93% had antibodies to measles virus (162).

Vaccine Safety

Measles vaccine is administered in combination with the mumps and rubella components as the MMR vaccine in the United States. Monovalent measles vaccine rarely has been used in the United States in the past 2 decades and is no longer available. After decades of use, evidence demonstrates that MMR vaccine has an excellent safety profile (134).

The majority of documented adverse events occur in children. In rare circumstances, MMR vaccination of adults has been associated with the following adverse events: anaphylaxis (approximately 1.0–3.5 occurrences per million doses administered) (134), thrombocytopenia from the measles component or rubella component (a rate of three to four cases for every 100,000 doses) (134), and acute arthritis from the rubella component (arthralgia develops among approximately 25% of rubella-susceptible postpubertal females after MMR vaccination, and approximately 10% have acute arthritis-like signs and symptoms) (135). When joint symptoms occur, they last for 1 day–3 weeks and rarely recur (135). Symptoms attributable to the rubella component of MMR vaccine are reported very rarely, if they occur at all. Data do not support an association between MMR and any of the following: hearing loss, retinopathy, Guillain-Barré Syndrome, type 1 diabetes, or autism (135,163–169).

A woman can excrete the rubella vaccine virus in breast milk and transmit the virus to her infant, but the infection remains asymptomatic (135). Otherwise, persons who receive MMR or its component vaccines do not transmit measles, rubella, or mumps vaccine viruses (135). No transmission of MMR vaccine virus in a health-care setting has been documented.

Recommendations

Vaccination

All persons who work in health-care facilities should have presumptive evidence of immunity to measles. This information should be documented and readily available at the work location. Recently vaccinated HCP do not require any restriction in their work activities.

Presumptive evidence of immunity to measles for persons who work in health-care facilities includes any of the following:

Kızamık

- İki doz MMR aşısı sonrası serolojik test önerilmemektedir.
- Temas sonrası MMR aşısının koruyuculuğu sınırlıdır (CDC).
- İmmün olmayan sağlık çalışanlarına temas sonrası ilk 72 saat içinde aşı uygulanması önerilmektedir, bu uygulama hastalık gelişimini önleyebilir ya da hafif geçirilmesini sağlayabilir (CDC).

Kızamıkçık (Rubella)

Clinical findings

- ◆ Malaise
- ◆ Low grade fever
- ◆ Morbilliform rash
- ◆ Rash starts on Face
Extremities
- ◆ Rarely lasts more than 5
days
- ◆ No features of the rash
give clues to definitive
diagnosis of Rubella.



Congenital Manifestations

Rubella syndrome



Microcephaly



PDA



Cataracts

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are thrombocytopenia and encephalitis (211). Infection is asymptomatic in 25%–50% of cases (213). Clinical diagnosis of rubella is unreliable and should not be considered in assessing congenital rubella syndrome. The clinical picture mimics that of other viral infections. The clinical picture is the

Gebelerde rubella sendromu

Of primary concern are the effects that rubella can have when a pregnant woman becomes infected, especially during the first trimester, which can result in miscarriages, stillbirths, therapeutic abortions, and congenital rubella syndrome (CRS), a constellation of birth defects that often includes blindness, deafness, mental retardation, and congenital heart defects (211,213). Postnatal rubella is transmitted through direct or droplet contact from nasopharyngeal secretions. The incubation period ranges from 12 to 23 days (214,215). An ill person is most contagious when the rash first appears, but the period of maximal communicability extends from a few days before to 7 days after rash onset (213). Rubella is less contagious than measles.

In the prevaccine era, rubella was an endemic disease globally with larger epidemics that occurred; in the United States, rubella epidemics occurred approximately every 7 years (211). During the 1964–1965 global rubella epidemic, an estimated 12.5 million cases of rubella occurred in the United States, resulting in approximately 2,000 cases of encephalitis, 11,250 fetal deaths attributable to spontaneous or surgical abortions, 2,100 infants who were stillborn or died soon after birth, and 20,000 infants born with CRS. The economic impact of this epidemic in the United States alone was estimated at \$1.5 billion in 1965 dollars (\$10 billion in 2010 dollars) (216).

ABD’de aşı öncesi görülen ciddi salgınlar
Küretaj, ölü doğum, malforme yeni doğanlar
Aşırı ekonomik kayıplar

strategy targeted children (218). During this resurgence, 62% of reported rubella cases occurred among persons aged >15 years compared with 23% of cases during 1966–1968 (135). As a result of the change in the epidemiologic profile of rubella, in 1977, ACIP modified its recommendations to include the vaccination of susceptible postpubertal girls and women. In 1989, a second MMR vaccination dose was recommended in response to large measles outbreaks nationwide (179). During

2001–2004, the annual numbers of rubella and CRS cases were extremely low, with 23 reported rubella cases in 2001, a total of 18 in 2002, a total of 7 in 2003, and a total of 9 in 2004 (219).

Rubella was declared eliminated from the United States in 2004 (219,220). During 2005–2009, a total of 54 cases of rubella were reported; the majority of the cases occurred among persons aged >20 years. Of the reported cases, 23 (43%) were import-associated; only two outbreaks of rubella were reported during this time, and both involved only three cases (CDC, unpublished data, 2009). Since 2005, only four cases of CRS have been reported, with two cases reported in 2009; three (75%) cases were acquired internationally, and the other had an unknown source (CDC, unpublished data, 2009). Rubella importations are expected to continue in the immediate future.

As of September 2011, only three states (i.e., New York, Oklahoma, and Rhode Island) had laws mandating that all hospital personnel have proof of rubella immunity and did not allow for religious or philosophical exemptions (147). Additional states had requirements for specific types of facilities or for certain employees within those facilities, but they did not have universal laws mandating proof of rubella immunity for all hospital personnel (147).

MMR vaccine coverage in the United States is high; in 2010, an estimated 91.5% of children aged 19–35 months had received 1 dose of MMR vaccine (21); during 2009–2010, a total of 94.8% of kindergarteners had evidence of 2 doses (148); and in 2010, a total of 90.5% of adolescents had evidence of 2 doses (22). Nationally representative data on MMR vaccine coverage of U.S. HCP are not available.

Rubella Transmission and the Costs of Mitigating Rubella Exposures in Health-Care Settings

No documented transmission of rubella to HCP or other hospital staff or patients in U.S. health-care facilities has occurred since elimination was declared. However, in the decades before elimination, rubella transmission was documented in at least 10 U.S. medical settings (221–231) and led to outbreaks with serious consequences, including pregnancy terminations, disruption of hospital routine, absenteeism from work, expensive containment measures, negative publicity, and the threat of litigation (232). In these outbreaks, transmission occurred from HCP to susceptible coworkers and patients, as well as from patients to HCP and other patients. No data are available on whether HCP are at increased risk for acquiring rubella compared with other professions.

PubMed

Format: AbstractInfect Control. 1985 Sep;6(9):371-4.

Nosocomial rubella--consequences of an outbreak and efficacy of a mandatory immunization program.

Heseltine PN, Ripper M, Wohlford P.

Abstract

An outbreak of rubella in a large metropolitan hospital is described. Nineteen cases among employees and three secondary cases in family members occurred. Nosocomial cases occurred among the 3,900 employees of an adult medical-surgical unit where a voluntary program of rubella immunization was in effect. No cases occurred among the 1,400 employees of the women's and pediatric units with mandatory policies, despite interfacility and community exposure. Ten pregnant women were among the 377 contacts of the cases. Five were sero-negative to rubella. Two who developed clinical rubella, one asymptomatic sero-conversion and one other, all elected to terminate their pregnancies. The remaining woman, exposed in her third trimester delivered a normal infant. We conclude a policy requiring new employees to be rubella immune is more effective in preventing nosocomial rubella than a voluntary program and is desirable in view of the potential consequences of an outbreak to pregnant employees.

PMID: 3850860

[Indexed for MEDLINE]

**Bir hastanede rubella salgını ve
Sağlık çalışanlarına aşı önerisi**

MeSH terms, Substance**LinkOut - more resources**

Centers for Disease Control and Prevention (CDC)

Recommendations and Reports

Vaccine Effectiveness, Duration of Immunity and Seroprevalence Studies, and Vaccine Safety

Vaccine Effectiveness

Vaccine effectiveness of the RA 27/3 rubella vaccine against clinical rubella is 95% (85%–99% CI) and >99% for clinical laboratory confirmed rubella (211,233). Antibody responses to rubella as part of MMR vaccine are equal (i.e., >99%) to those seen after the single-antigen RA 27/3 rubella vaccine

**MMR aşısının rubella için antikor yanıtı >%99
Koruyuculuk %95.**

antibodies might wane after 12–15 years (237,238); however, rubella surveillance data do not indicate that rubella and CRS are increasing among vaccinated persons.

National seroprevalence for rubella antibodies among persons aged 6–49 years during 1999–2004 was 91% (239). During 1986–1990, serologic surveys in one hospital indicated that 5% of HCP (including persons born in 1957 or earlier) did not have detectable rubella antibody (240). Earlier studies indicated that up to 14%–19% of U.S. hospital personnel, including young women of childbearing age, lacked detectable rubella antibody (225,241,242). In a recent study on rubella seroprevalence among 477 newly hired HCP at a hospital in North Carolina who were born before 1957, and thus considered immune by age, who could not provide written evidence of immunity to rubella, serologic testing revealed that 14 (3.1%) lacked detectable levels of antibody to rubella (157).

Because of the potential for contact with pregnant women in any type of health-care facility, all HCP should have documented presumptive evidence of immunity to rubella. History of disease is not considered adequate evidence of immunity.

Vaccine Safety

Rubella vaccine is administered in combination with the measles and mumps components as the MMR vaccine in the United States. Monovalent rubella vaccine has been used rarely in the United States in the past 2 decades and is no longer available. After decades of use, evidence demonstrates that MMR vaccine has an excellent safety profile. The most common adverse reactions to the rubella component of the MMR vaccine are transient rashes, which usually appear 7–10 days after vaccination in approximately 5% of vaccinated persons, or transient lymphadenopathy, fever, sore throat, and headache (135,211).

The majority of documented adverse events occur in children. In addition, there have been reports of anaphylaxis (135) after the second dose administered as the MMR2 component of the vaccine for every 100,000 rubella component doses. In 25% of rubella vaccine recipients, signs and symptoms of the vaccine (135) consist for 1 day. Symptoms associated with the vaccine are very rare as a result of the vaccine.

Persons who have received a receipt of a rubella vaccine should be a reason to be counseled. For women who have received rubella vaccine 18 years of age or older, women who have received rubella vaccine 18 months after birth, infants born to women with congenital rubella infection, subclinical rubella infection, serious malformations, or receiving rubella vaccine should be counseled to 1.6% (135,244).

Evidence does not support a link between MMR vaccination and any of the following: hearing loss, retinopathy, optic neuritis, Guillain-Barré Syndrome, type 1 diabetes, Crohn's disease, or autism (135,163–169).

A woman can excrete the rubella vaccine virus in breast milk and transmit the virus to her infant, but the infection remains asymptomatic (135). Otherwise, persons who receive MMR or its component vaccines do not transmit measles, rubella, or mumps vaccine viruses (135). No transmission of MMR vaccine virus in a health-care setting has been documented.

Recommendations

Vaccination

All persons who work in health-care facilities should have presumptive evidence of immunity to rubella. Adequate rubella

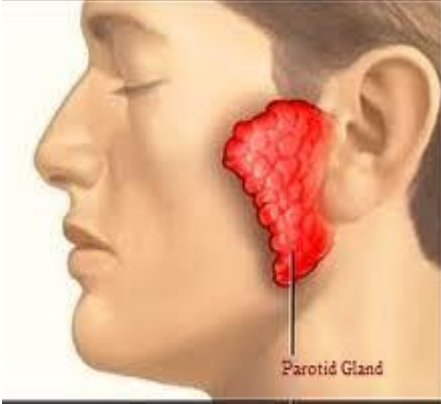
Rubella için tek doz MMR aşısı önerilir.

containing vaccine, which should provide an additional safeguard

Kızamıkçık

- Aşı etkinliği %85-99,
- Tek doz MMR aşısı yeterli,
- Aşı öncesi test yapılması önerilmiyor,
- Tek doz MMR aşısı yaptığını belgeleyenlere veya laboratuvar olarak kanıtlayanlara aşı yapmaya gerek yoktur.

Kabakulak (Mumps)



Kabakulak kaynaklı hastane salgını

05.2017

EBSCOhost | 49189761 | Effects of Mumps Outbreak in Hospital, Chicago, Illinois, USA, 2006.

Effects of Mumps Outbreak in Hospital, Chicago, Illinois, USA, 2006.

Source: Emerging Infectious Diseases . Mar2010, Vol. 16 Issue 3, p426-432. 7p. 2 Diagrams, 3 Charts, 2 Graphs.

Author(s): Bonebrake, Amanda L.; Silkaitis, Christina; Monga, Gaurav; Galat, Amy; Anderson, Jay; Trad, JoEllyn Tiesi; Hedley, Kenneth; Burgess, Nanette; Zembower, Teresa R.

Abstract:

In 2006, nearly 6,000 mumps cases were reported in the United States, 795 of which occurred in Illinois. In Chicago, 1 healthcare institution experienced ongoing transmission for 4 weeks. This study examines the outbreak epidemiology and quantifies the financial affect on this organization. This retrospective cohort study was conducted through case and exposure identification, interviews, medical record reviews, and immunologic testing of blood specimens. Nine mumps cases resulted in 339 exposures, 325 98%) among employees. During initial investigation, 186 57%) of the exposed employees had evidence of mumps immunity. Physicians made up the largest group of noncompliers (55%) with mumps immunity testing. The cost to the institution was \$262,788 or \$29,199 per mumps case. The outbreak resulted in substantial staffing and financial challenges for the institution that may have been minimized with readily accessible electronic employee vaccination records and adherence to infection control recommendations.

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Kabakulak

- Ateş, parotit, sağırılık, orşit, meningoensefalit,
- Komplikasyonlar yaş ile paralel olarak artar.
- Hastane salgınlarına sebep olabilir,
- Kabakulak olduğu belirlenen bir sağlık çalışanı, parotit semptomları ortaya çıktıktan sonra 5 gün süre ile işten uzaklaştırılmalıdır,
- Tek doz MMR aşısı %80-85 koruyuculuk sağlar
- İki doz yapıldığında %95'e kadar çıkabilir,
- Şüpheli temas halinde MMR aşısı kabakulak için gereken zamanda yeterli immunité oluşturmaz, bu nedenle aşı profilakside önerilmez (CDC),
- İki doz kabakulak aşısı yaptığını belgeleyenlere veya laboratuvar olarak kanıtlayanlara aşı yapmaya gerek yoktur.

Kabakulak

- MMR canlı virüs aşısıdır,
- Gebelere ve bağışıklığı baskılanmış (HIV + gibi..) hastalara, neomisin allerjisi olanlara, daha önce anafilaksi geçirenlere yapılmaz (CDC),
- Aşı öncesi gebelik, neomisin ve yumurta alerjisi sorgulanmalıdır,
- Gebelere MMR aşısı yapılması gebeliğin sonlandırılmasını gerektirmez (CDC),
- Aşı sonrası 7-14 gün içinde ateş, hafif döküntü, lenfadenopati ve hafif semptomlarla orşit görülebilir.

Tetanoz-Difteri Aşısı



Tetanoz

Difteri



Tetanoz-Difteri Aşısı

- Tüm sağlık çalışanları Td aşı serisini yaptırdığını ve her 10 yılda bir rapel doz yaptığını belgelemelidir,
- Başlangıç dozlarını tamamlamış olan fakat belgeleyemeyen personele 3 doz aşı yapılmalıdır, (*)
- Serinin ilk dozu Tdap olarak uygulanmalıdır. (*)

(*)Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):39.

Boğmaca (Pertussis)



*Elli Yaşın Üstündeki
Erişkinlerde
Boğmaca Olguları Artıyor*

Boğmaca

- Son yıllarda Kuzey Amerika, çeşitli Avrupa ülkeleri ve Avusturalya'dan olgu sayılarında artış ve salgınlar bildirildi,
- Türkiye'de de son yıllarda olgu sayıları arttı,
- < 1 yaşda önemli morbidite ve mortalite nedeni,
- Rutin aşılama programı ile boğmaca çocuklarda önemli ölçüde azaldı,
- Zamanla immunité azalması ile yetişkinlerde boğmaca vakalarında artış görülür,

Isparta İlinde 10-15 Yaş Grubu Sağlıklı Çocuklarda Boğmaca Seroepidemiolojisi

Seroepidemiology of Pertussis in 10-15 Years Old Healthy Children in Isparta Province, Turkey

Hakan SEÇKİN¹, Ahmet Rifat ÖRMECİ¹, Gonca SANDAL¹, Selçuk KAYA²¹ Süleyman Demirel Üniversitesi Tıp Fakültesi, Çocuk Hastalıkları Anabilim Dalı, Neonatoloji Ünitesi, Isparta.¹ Suleyman Demirel University Faculty of Medicine, Department of Pediatrics, Neonatology Unit, Isparta, Turkey.² Süleyman Demirel Üniversitesi Tıp Fakültesi, Tıbbi Mikrobiyoloji Anabilim Dalı, Isparta.² Suleyman Demirel University Faculty of Medicine, Department of Medical Microbiology, Isparta, Turkey.

ÖZET

Bulaşıcılığı yüksek olan boğmaca, çoğunlukla bebek ve küçük çocukları etkilemekte ve özellikle bir yaşından küçük bebeklerde ölüme yol açabilmektedir. *Bordetella pertussis* bebek ve çocukların yüksek oranda aşılandığı popülasyonlarda bile yayılmaya devam etmektedir. Son 25 yılda tüm dünyada ve ülkemizde yükselen aşılama oranlarına rağmen, özellikle ergen ve erişkin boğmaca olgu sayıları artmaktadır. Erişkinler, bebeklerdeki ciddi ve hayatı tehdit eden enfeksiyonlar için bir kaynak olmaktadır. Boğmaca enfeksiyon riskini azaltmak, ergen ve erişkinleri dolayısıyla bebekleri boğmacadan korumak için, okul çağından itibaren aşılanmaları gereği vardır. Bir ülkede boğmaca aşısının pekiştirilmesi için hastalığın yaşlara göre seroepidemiolojisinin bilinmesi şarttır. Bu çalışmada, 10-15 yaş arası çocuklarda pertussis toksine karşı antikor düzeylerinin belirlenmesi amaçlanmıştır. Çalışmaya, sağlıklı, aşılamaları güncel olan 128 kız, 126 erkek ile 18-39 yaş arasında 42 erişkinden (21 erkek, 21 kız) toplam 254 katılımcı dahil edilmiştir. Katılımcıların boğmacaya karşı serum antikor düzeyleri ELISA yöntemi (Genzyme Virotech, Almanya) ile araştırılmasıyla pertussis toksine karşı seropozitiflik oranı %12.6 (32/254) olarak saptanmış, erişkin yaş grubunda ise %10.8 (32/296)'inde seropozitiflik tespit edilmiştir. Pertussis toksin IgG seropozitifliği erkeklerin %12.7 (16/126)'sinde, kızların ise %12.5 (16/128)'inde saptanmış, cinsiyetler arasında anlamlı bir fark tespit edilmemiştir ($p > 0.05$). En yüksek seropozitiflik oranları erkeklerde 10. (%23.8) ve 11. (%19) yaşlarda, kızlarda ise 12. ve 14. yaşlarda (%23.8) izlenmiştir. Katılımcıların hiçbirinde 15. yaştan sonra seropozitiflik belirlenmemiştir. Boğmaca aşısı ile elde edilen koruyuculuğun zamanla azalması nedeniyle, ergen ve erişkinler bebekler için enfeksiyon kaynağı olmaktadır. Bu nedenle okul öncesi ve 14-18 yaş arasında hücresiz boğmaca aşısı ile pekiştirme dozunun eklenmesi düşünülmeli; ülkemizde aşı oranlarının artırılmasının yanı sıra, boğmacaya yönelik tanı ve surveyans

Boğmaca;
10-15 yaş arası seropozitiflik %12.6,
>15 yaş seropozitiflik %0

Öneri:

Okul öncesi ve 14-18 yaş arası asellüler boğmaca aşısı yapılması

especially in babies less than one year of age. *Bordetella pertussis* continues to circulate even in populations where a high vaccine coverage of infants and children is achieved. Adults are reservoirs for infections in infants, in whom pertussis may be severe and life-threatening. Despite the rising rates of vaccination in our country and all over the world for the past 25 years, the number of pertussis cases among adolescents and adults has been increasing. To decrease the risk of pertussis infection and thus protect adults and adolescents against pertussis, booster doses should be administered to preschool children and adolescents. In order to decide when to administer the booster doses in a country, age-specific seroepidemiology of the disease should be known. The aim of this study was to determine the pertussis toxin antibody levels of fully vaccinated healthy children in Isparta, Turkey, aged 10-15 years old. A total of 296 participants, that comprised fully vaccinated 254 healthy

Boğmaca

- Yetişkinler çocuklar için enfeksiyon kaynağı olma özelliğindeler,
- Bu nedenle sağlık çalışanları boğmacaya karşı bağışık olmalıdırlar,
- 2005 yılından bu yana asellüler boğmaca aşısı Tdap şeklinde erişkin bağışıklamada uygulanmaktadır,
- Koruyuculuk %78-92 seviyesinde,
- Aşı öncesi ve sonrasında test önerilmez,
- Bir kez uygulanmaktadır, sonrasında 10 yılda bir Td yapılır,
- Temas sonrası profilakside aşı değil antibiyotik kullanılır.

PubMed

Format: Abstract

Full text links

PEDIATRICS

FINAL VERSION

Pediatrics. 2011 Sep;128(3):e591-9. doi: 10.1542/peds.2010-0796. Epub 2011 Aug 15.

Use of models to identify cost-effective interventions: pertussis vaccination for pediatric health care workers.

Greer AL¹, Fisman DN.

Author information

Abstract

OBJECTIVE: Acellular pertussis vaccine is safe and effective in adults. An explicit recommendation for pertussis booster vaccination in pediatric health care workers is based on the importance of health care workers as a potential source of infection for patients. However, limited information is available on the economic attractiveness of this intervention. We sought to evaluate the health-economic attractiveness of a diphtheria-tetanus-acellular pertussis booster vaccination program for health care workers in a pediatric intensive care setting.

METHODS: We developed a Markov model to calculate the cost-effectiveness of vaccinating NICU health care workers in different proportions ranging from the current strategy of no pertussis booster vaccination program to a vaccination program that achieves between 25% and 95% vaccine coverage.

RESULTS: Implementation of a vaccination program that achieves 25% coverage was projected to be cost-saving compared with no vaccine program. At all coverage levels the intervention reduced costs, increased life expectancy, and was cost-effective. Projections were most sensitive to the risk of a pertussis introduction via an infected health care worker. Once the monthly risk of an introduction exceeded ~0.3%, implementation of an immunization program with at least 25% coverage provided both greater health and greater economic benefits than having no vaccine program.

CONCLUSIONS: The implementation of a hospital-based and funded diphtheria-tetanus-acellular pertussis vaccine program administered through an occupational health program is cost-effective or cost-saving in the context of pediatric health care facilities in which many of the patients are at risk of serious morbidity and mortality should they acquire pertussis while hospitalized.

PMID: 21844056 DOI: [10.1542/peds.2010-0796](https://doi.org/10.1542/peds.2010-0796)

<https://www.ncbi.nlm.nih.gov/pubmed/21844056>

Sağlık çalışanlarına Tdap aşı programı uygulanması
çocuk sağlık tesislerinde maliyet etkindir.

PubMed ▼

Format: Abstract

Full text links

OXFORD
ACADEMICClin Infect Dis. 2006 Apr 1;42(7):981-8. Epub 2006 Feb 15.

Nosocomial pertussis: costs of an outbreak and benefits of vaccinating health care workers.

Calugar A¹, Ortega-Sánchez IR, Tiwari T, Oakes L, Jahre JA, Murphy TV.

Author information

1 bebekten 17 sağlık çalışanına boğmaca bulaşı

Abstract

BACKGROUND: In September 2003, 17 symptomatic cases of pertussis among health care workers (HCWs) resulted from a 1-day exposure to an infant who was later confirmed to have pertussis. These HCWs identified 307 close contacts. The hospital implemented extensive infection-control measures. The objective of this study was to determine direct and indirect costs incurred by the hospital and symptomatic HCWs as a result of the September 2003 outbreak and to estimate possible benefits of vaccinating HCWs from the hospital perspective.

METHODS: We determined costs by interviewing infection-control and hospital personnel, reviewing billing records, and surveying symptomatic HCWs. We calculated the benefits and costs of a vaccination program for HCWs, using a probabilistic model to estimate the number of pertussis exposures that would require control measures annually. Sensitivity and threshold analyses were performed.

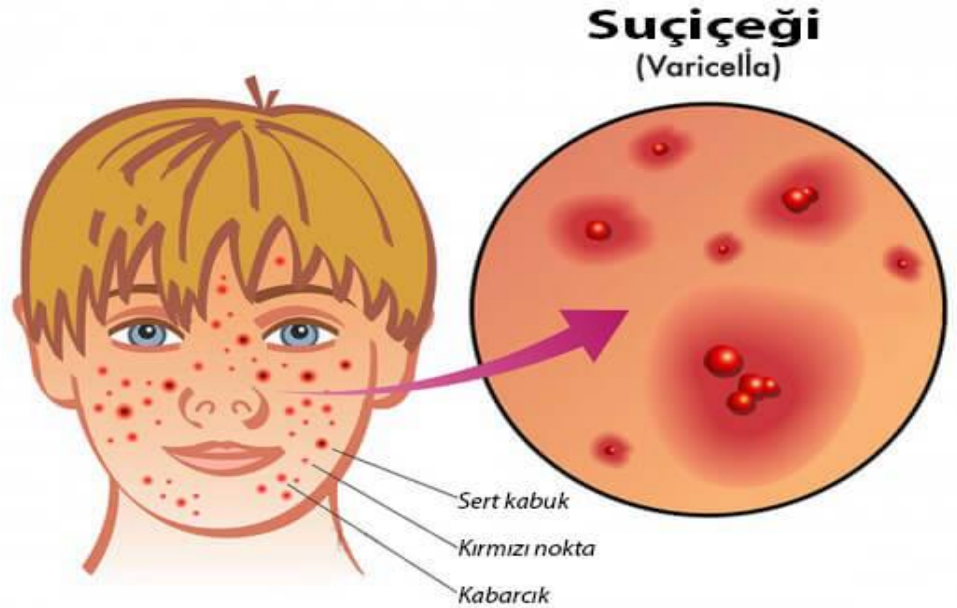
RESULTS: The outbreak cost to the hospital was 74,870 dollars. The total measured cost of the outbreak was 81,382 dollars, including costs incurred by HCWs (6512 dollars). Our model predicted that vaccinating HCWs against pertussis would prevent >46% of exposures from HCWs with pertussis per year and would provide net savings. The benefit for the hospital was estimated to be 2.38 times the dollar amount invested in vaccinating HCWs. The number of exposures prevented and the benefit-cost ratio were sensitive to the number of exposures identified, the incidence of pertussis among HCWs, and HCW turnover.

CONCLUSIONS: A single nosocomial pertussis outbreak resulted in substantial disruption and costs to the hospital and to HCWs. Our model suggests that cost savings and benefits could be accrued by vaccinating HCWs against pertussis.

PMID: 16511764 DOI: [10.1086/500321](https://doi.org/10.1086/500321)

[Indexed for MEDLINE]

Suçiçeği



Suçiçeği

- Varisella Zoster virusu çok bulaşıcıdır,
- Hastayla doğrudan temas, veziküler sıvı veya solunum sekresyonları aerollarının inhalasyonu,
- İnfekte birey, döküntü başlamadan 1-2 gün öncesinden, lezyonlar kabuklanana kadar (4-7 gün) bulaştırıcıdır,
- Türkiye’de yapılan bir çalışmada sağlık çalışanlarının %98’inin suçiçeğine bağışık olduğu, aşıdan önce test yapmanın, aşı yapmaktan daha maliyet etkin olduğu gösterilmiştir,
- Özellikle Kadın-Doğum Kliniği, Yenidoğan Kliniği ve İmmunsuprese hastaların takip edildiği klinik çalışanları aşılanmalıdır,

Suçiçeđi

- Tüm sađlık alıřanları,
- 4-8 hafta ara ile iki doz suieđi ařısı yapılır,^(*)
- İki doz ařı yaptırdıđını belgeleyen,^(*)
- Bađıřık olduđunu laboratuvar kanıtı ile gsteren,^(*)
- Doktor tarafından suieđi veya herpes zoster tanısı konan sađlık alıřanları bađıřık kabul edilir, ařılanmaz,^(*)
- İki doz ařı sonrası 5 yıl boyunca koruyuculuk %97,
- Ařı sonrası antikor taraması nerilmez,^(*)
- Ařı sonrası dknt grlrse sađlık alıřanının duyarlı hastalarla teması nlenir.^(*)

^(*)Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):23-24.

Suçiçeği

- Serokonversiyon her zaman hastalıktan koruma anlamına gelmez,
- Suçiçeği ile temas eden ve 2 doz aşısı bulunan sağlık çalışanı 8-21 gün takip edilir, ateş-deri lezyonları veya sistemik semptomlar oluşursa işten uzaklaştırılır,^(*)
- Maruz kalan sağlık çalışanının 1 aşısı varsa 3-5 gün içinde ikinci aşı yapılmalıdır. İkinci aşı yapılamazsa ya da >5 gün sonra yapılırsa 8-21 gün işten uzaklaştırılır,^(*)
- Maruz kalan sağlık çalışanının aşısı yoksa ya da aşı durumu bilinmiyorsa 8-21 gün izinli olarak işten uzaklaştırılır. Maruziyet sonrası ilk 3-5 içinde aşılama yapılması eğer alınmışsa hastalığın seyrini değiştirebilir, >5 gün sonraki aşılama ise sonraki maruziyetlere karşı korur,^(*)
- Varisella zoster immunglobulini ülkemizde yok, hastalığın semptomlarını azaltır, temas sonrası en kısa sürede ve bir hafta içinde uygulanmalıdır.^(*)

^(*) Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):23-24

Özel Durumlarda Uygulanacak Aşılar

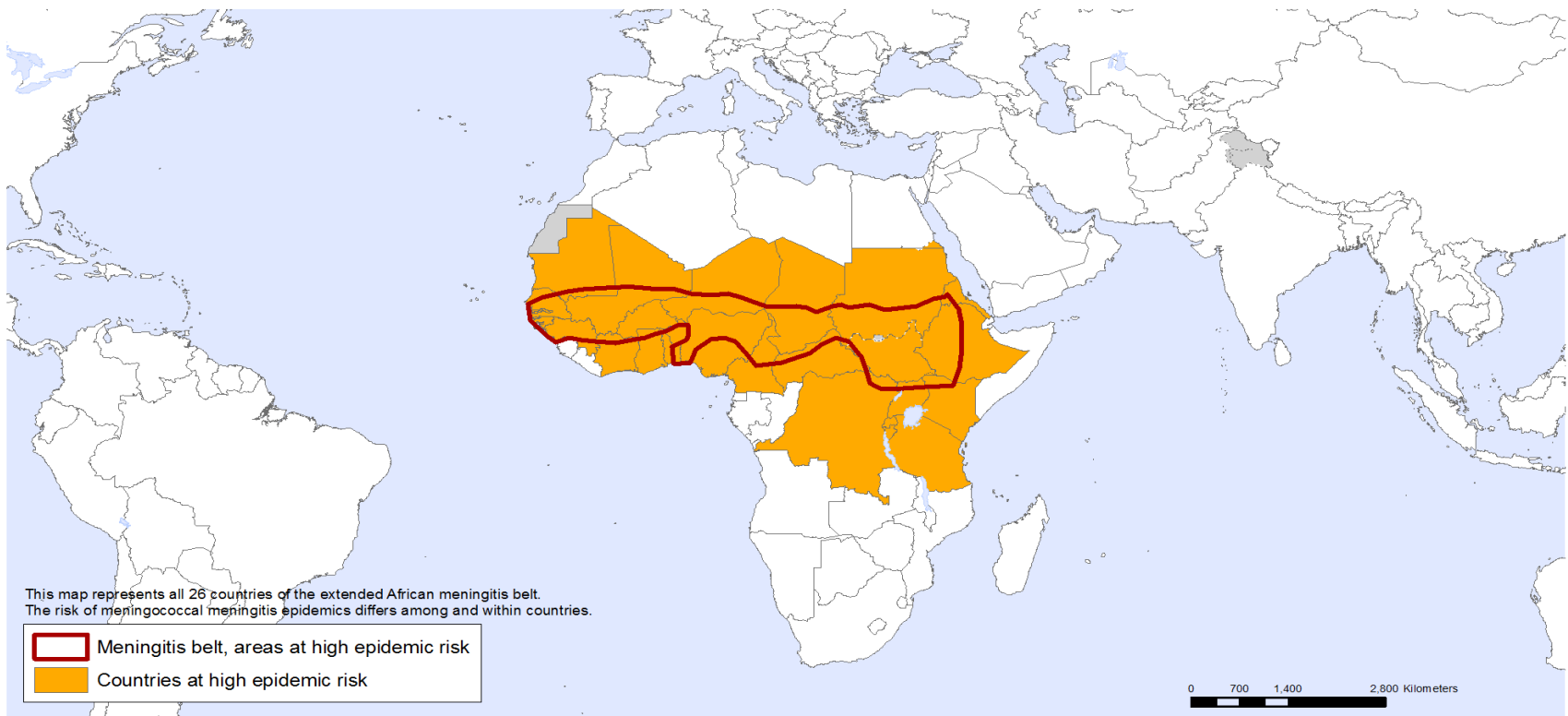
- Meningokok Aşısı
- Tifo Aşısı
- Polio Aşısı
- BCG Aşısı

Meningokok



Meningokoksik Menenjit

Meningococcal meningitis, countries or areas at high risk, 2014



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: International Travel and Health
World Health Organization



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Meningokok Aşısı

- *Neisseria meningitidis* suşları ile çalışan laboratuvar çalışanları ile meningokoksik hastaların sekresyonları ile doğrudan temas riski bulunan sağlık çalışanlarına aşı önerilir,^(*)
- Damlacık izolasyonu ve gereğinde kemoprofilaksi korunmada yeterlidir,^(*)
- Rifampisin, siprofloksasin, seftriakson.^(*)

^(*) Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):25-26.

Meningokok Aşısı

- Quadrivalan meningokokkal konjuge aşı (A,C,Y,W-135)
 - Sağlık çalışanlarına tek doz, aspleni, HIV infeksiyonu ve kompleman eksikliği bulunan riskli gruba en az 2 ay ara iki doz önerilir.^(*)
 - Risk devam ettiği sürece 5 yılda bir tekrar edilir.^(*)
- Meningokokkal polisakkarit aşı (MPSV4)
 - >56 yaş üstünde, tek doz kullanılır.^(*)

^(*)Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):25-26.

Tifo

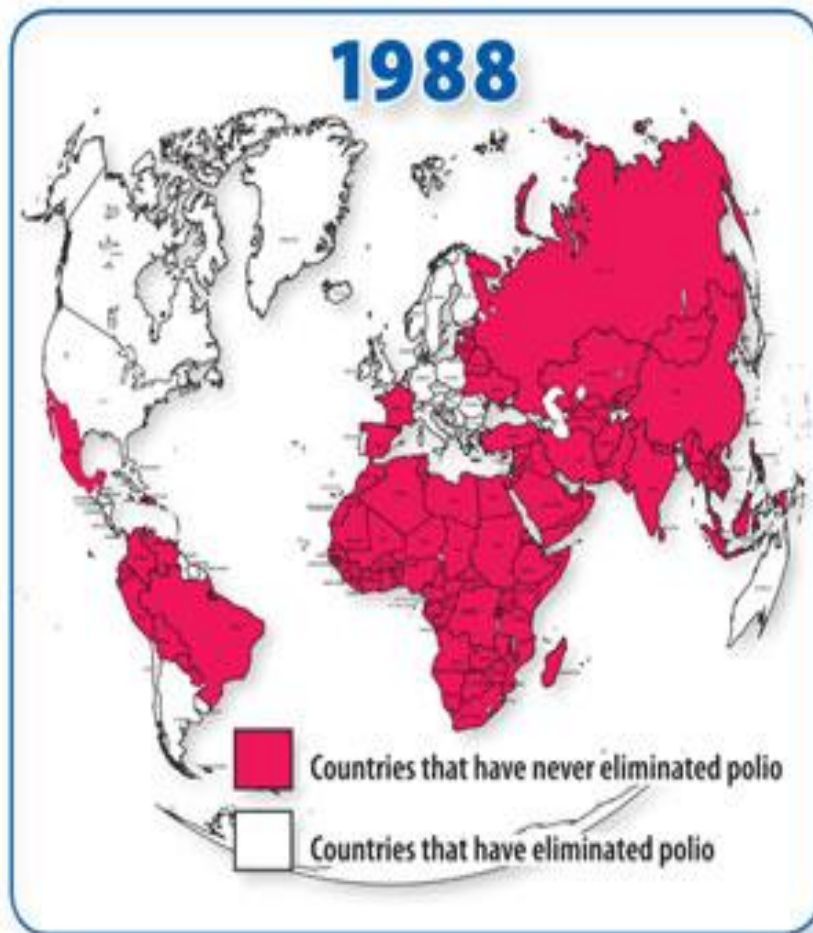
- İnfekte hastanın elleri ile sağlık çalışanına bulaş,
- Temas izolasyonu ve kişisel hijyene uymak bulaşı önlemede yeterli,
- Laboratuarda *S.typhi* ile çalışanlara aşı önerilir,^(*)
- İki tip aşısı var,^(*)
 - Oral canlı-attenuae Ty21a aşısı: Gün aşırı 4 kapsül, beş yılda bir rapel, HIV (+) gibi immunsuprese sağlık çalışanına yapılmamalı,
 - Kapsüler polisakkarit parenteral aşı: IM yolla 0.5 ml tek doz, iki yılda bir rapel
- Her iki aşı da %50-80 korur.

^(*) Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):26-27.

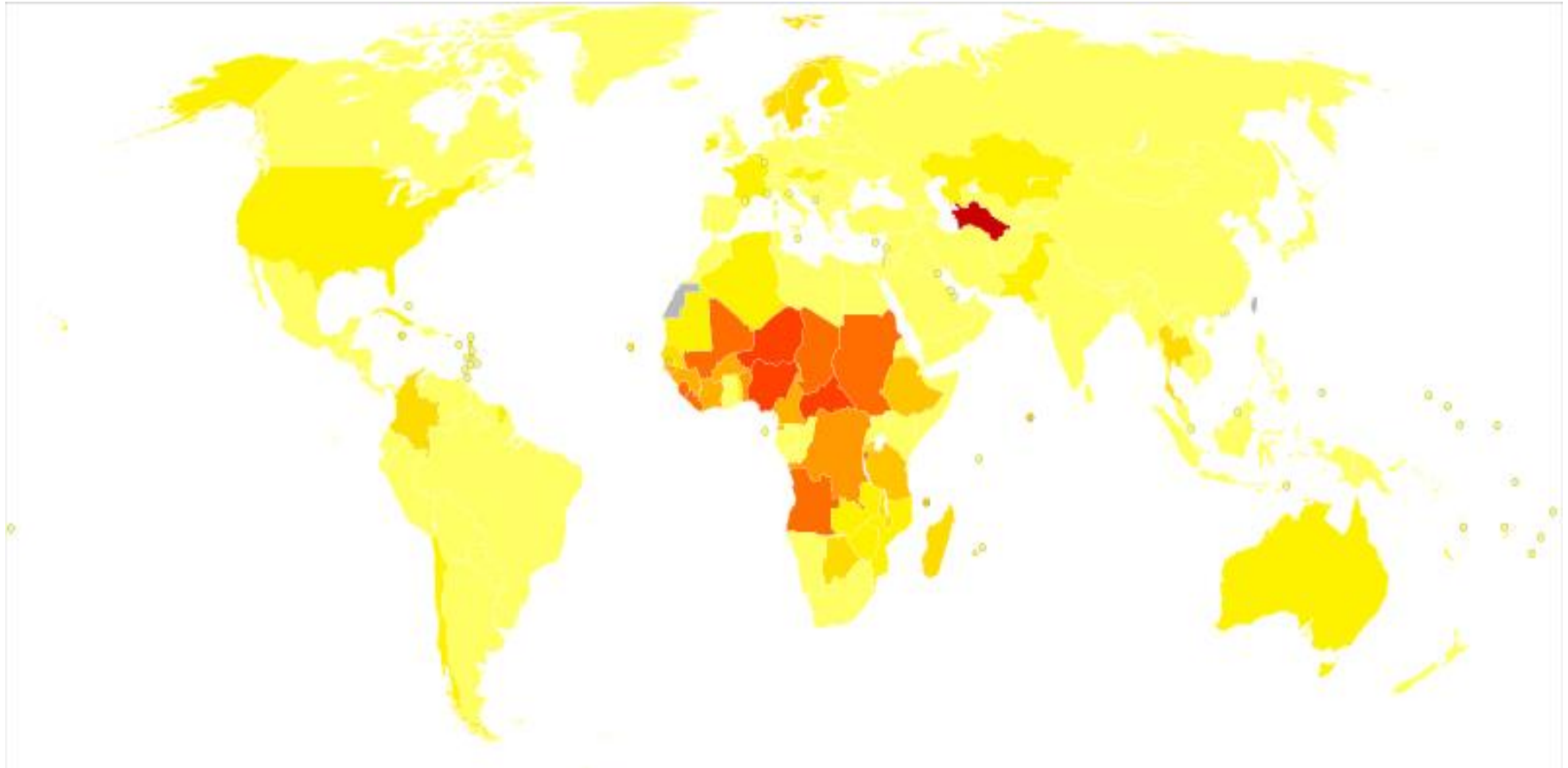
Poliomyelitis



Poliomyelitis



Poliomyelitis



Poliomyelit

- Eradikasyonu için çok uğraşıyor, henüz başarılı olunamadı,
- Hastaların farengeal örnekleri, idrar, gaita, virüs içeren örnekleri ve nadiren BOS ile sağlık çalışanlarına bulaş,
- İki tip polio aşısı var,
 - Canlı attenüe virus aşısı (OPV)
 - İnaktive polio aşısı (IPV): İnaktive aşıdır, iyi tolere edilir, 3 doz aşı (2. aşı 1. aşıdan 4-8 hafta sonra, 3. aşı 6-12 aylarda) Poliovirus tip 2 ve 3'te %100, tip 1'de %96-100 korur,^(*)
- Rutin serisini tamamlamış sağlık çalışanlarına ek bir doz IPV aşısı ömür boyu bağışıklık sağlar.^(*)

^(*)Centers for Disease Control and Prevention (CDC). Immunization of health-care personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 2011; 60(No. RR7):27.

Hangi sađlık alıřanları ařılanmalıdır?

- Poliovirüs ieren materyal ile alıřan laboratuvar alıřanları,
- Vahři poliovirüs sekrete eden hasta ile yakın temas riski olan sađlık alıřanları,
- Poliovirüsün görüldüğü bölgede alıřan sađlık alıřanları.

Poliomyelit



ISLAMABAD, Pakistan



Taha SIDDQUI



PAKISTAN POLIO WORKERS KILLED

Taliban oppose UN-backed nationwide vaccination campaign



Poliomyelit

Suriye'de Çocuk
Felci Tehlikesi

DİKKAT!

**TÜRKİYE İÇİN
BÜYÜK RİSK!**

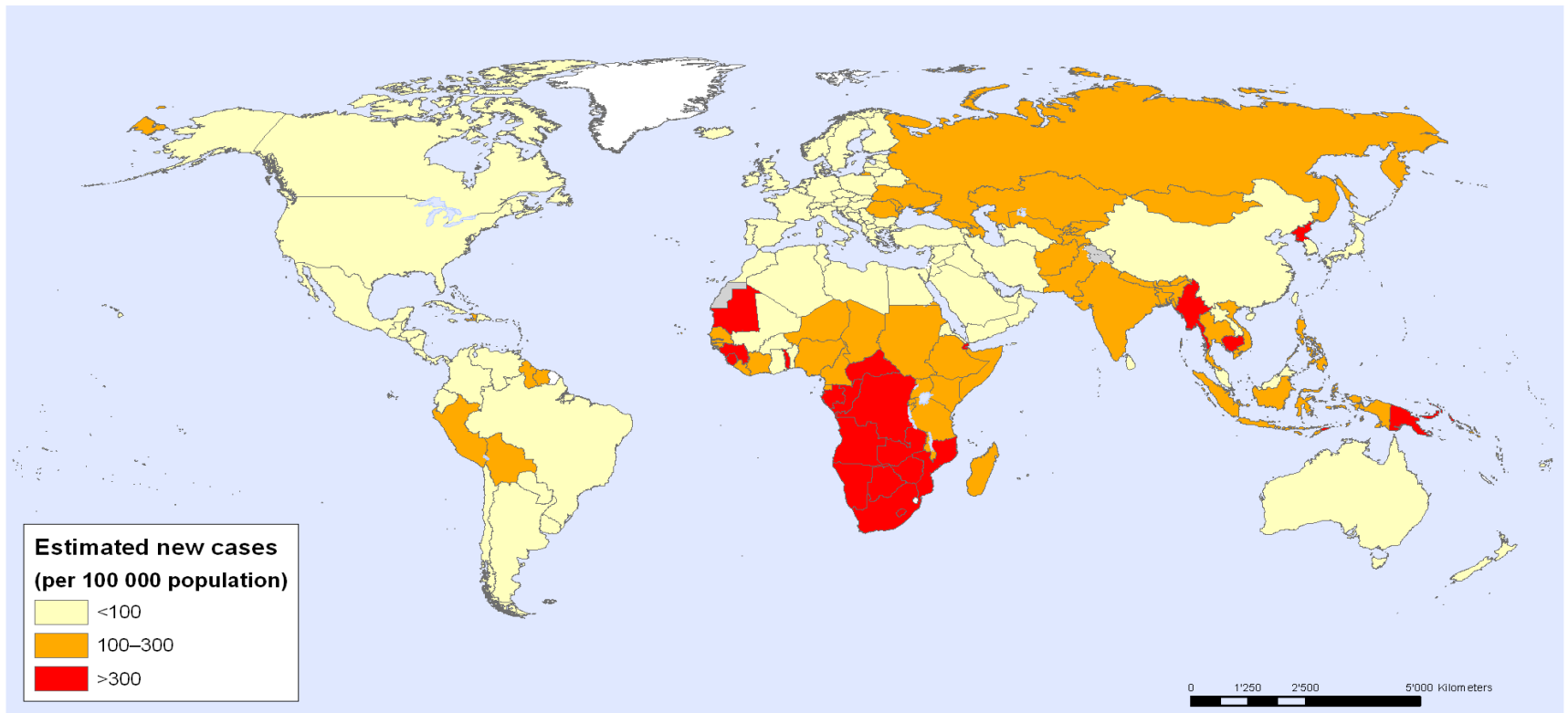
"Suriye'deki
Abluka Yıllardır
Görölmeyen
Hastalıkları ..



*Suriye'deki Kolera Salgını
Uluslararası Bir Tehdit*

Tüberküloz

Tuberculosis, estimated new cases, 2010



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Public Health Information
and Geographic Information Systems (GIS)
World Health Organization



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BCG Aşısı

- Türkiye’de rutin aşı şemasında var,
- Tam koruma söz konusu değil,
- İnfekte hastaların erken tanı ve tedavisi ile infekte kişilere koruyucu tedavi verilmesi önem arz eder,
- İmmun sistemi baskılanmış sağlık çalışanları tüberküloz açısından düşük riskli yerlerde çalıştırılmalıdır.
- İzonyazid ve rifampisin dirençli *M.tuberculosis* olgularının çok olduğu yüksek riskli yerlerde çalışan sağlık çalışanlarına bulaş olasılığının olduğu durumda,
- Tüberküloz kontrol önlemlerinin alındığı, yine de başarılı olunamadığı yerlerde çalışan sağlık çalışanlarına BCG aşısı önerilir.

Diğer Aşılar

- Hepatit A Aşısı:

- Mutfak personeli
- Yenidoğan yoğun bakım personeli
- Kronik karaciğer hastalığı
- Seyahat halinde bulunan
- Hepatit A IgG negatif sağlık çalışanı

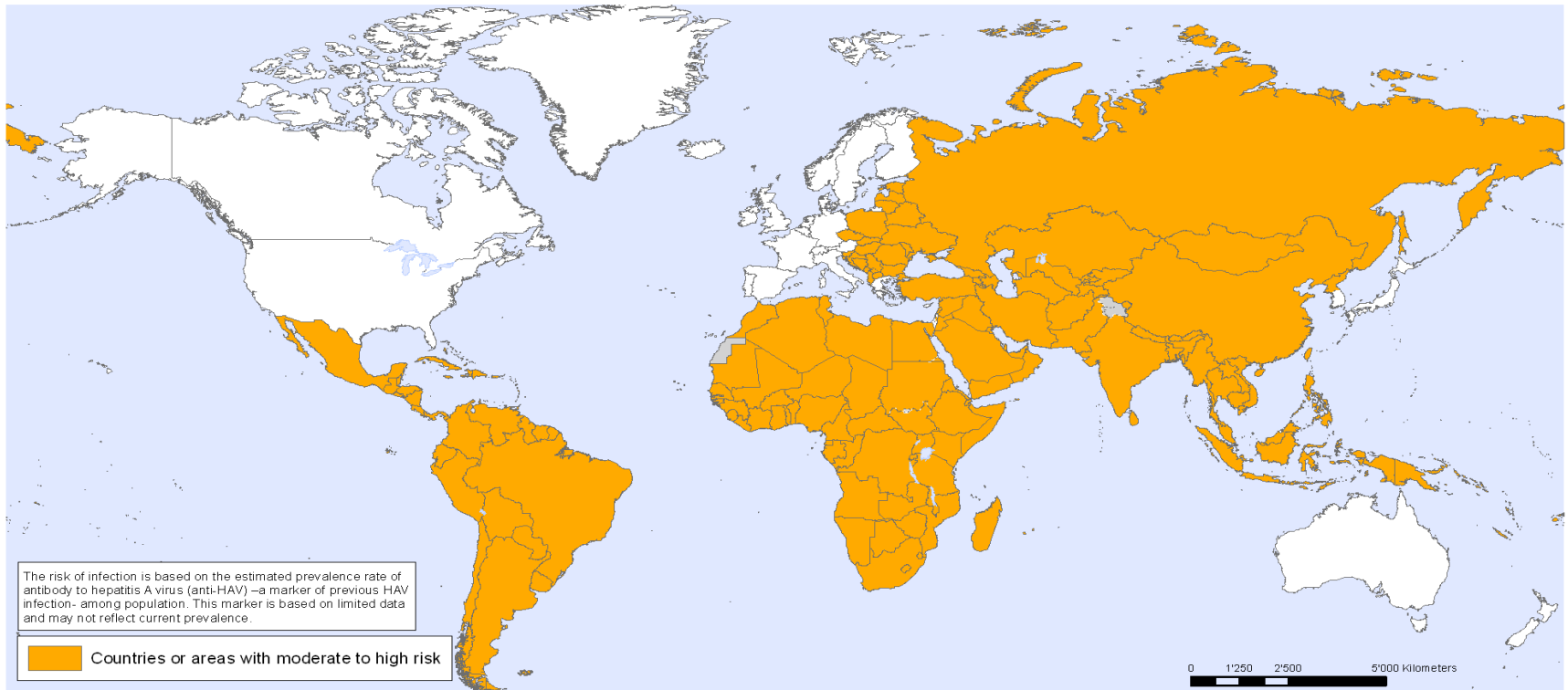
- Pnömonokok Aşısı:

- Kardiak, Pulmoner, Böbrek hastalığı bulunan,
- İmmunsuprese (HIV +), anatomik ya da fonksiyonel aspleni,
- >65 yaş sağlık çalışanı
- Diabetes Mellitus

- Kuduz Aşısı: İnfekte doku, sıvı ve hayvanlarla deneysel çalışmalar yapan sağlık çalışanları

Hepatit A

Hepatitis A, countries or areas at risk



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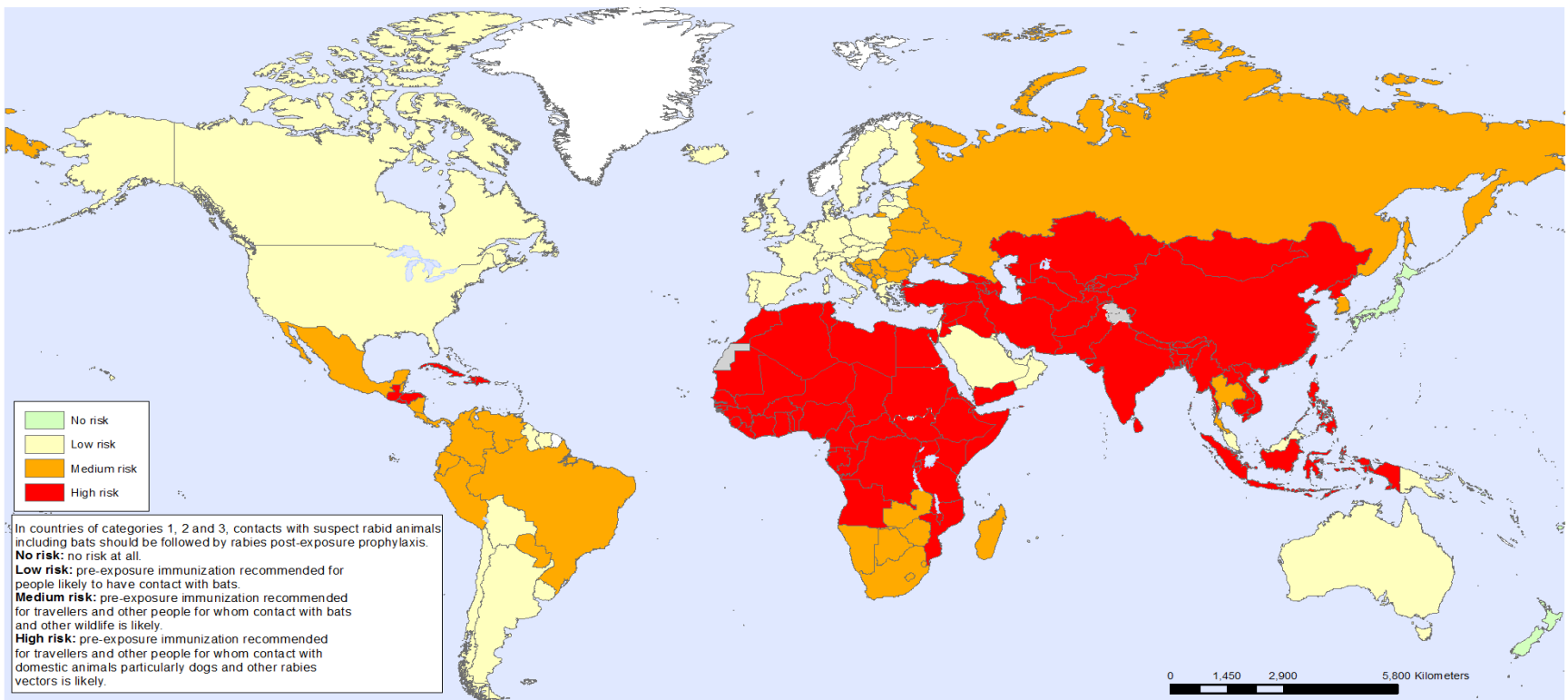
Data Source: World Health Organization.
Jacobsen KH, Wiersma ST. Hepatitis A virus
seroprevalence by age and world region,
1990 and 2005. *Vaccine* 2010 Sep;28(41):6653-7
Map Production: Public Health Information
and Geographic Information Systems (GIS)
World Health Organization



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Kuduz

Rabies, countries or areas at risk



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Data Source: WHO Control of Neglected
Tropical Diseases (NTD)
Map Production: Health Statistics and
Information Systems (HSI)
World Health Organization



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Teşekkür Ederim