

Grip, Soğuk Algınlığı ve Antimikrobiyal Tedavisi

Acilde İnfeksiyon Hastalıklarına Yaklaşım Sempozyumu
11-13 Nisan 2014, İzmir

Dr. Figen Kaptan
İzmir Atatürk Eğitim ve Araştırma Hastanesi

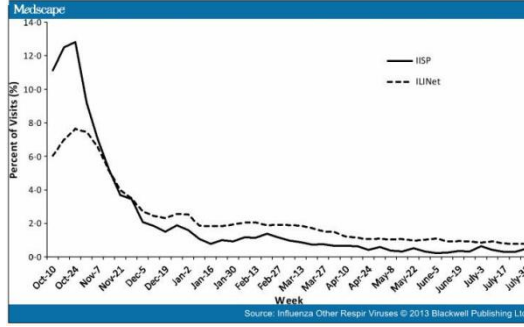


Soğuk Algınlığı

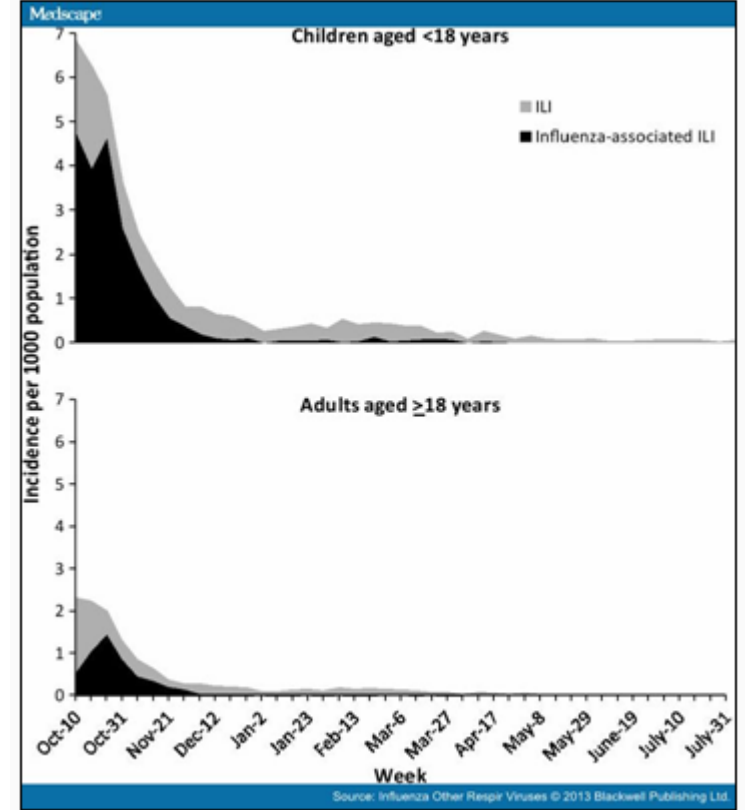
- Viral patojenler
- Hafif seyirli, kendi kendini sınırlayan
- Ekonomik yük: üretim gücü kaybı ve tedavi harcamaları
 - ABD : 21 milyon okul günü, 20 milyon iş günü;
 - 110 milyon doktora başvuru;
 - 3 milyar \$ ilaç harcaması
- Okul öncesi çocuklar: ort. insidans: 5-7 infeksiyon/yıl
 - %10-15: ≥ 12 infeksiyon/yıl
 - kreş: ilk yılında %50 daha fazla infeksiyon
- Erişkin: 2-3 infeksiyon/yıl

Grip

- Salgınlar



- 1918-1919 pandemi: 21 milyon ölüm
- Atak hızı: gençlerde yüksek
- Mortalite: yaşlılarda yüksek
- 51,000 ölüm/yıl (ABD)
- Yüksek riskli grup:
morbidite ve mortalite yüksek
astım, kronik metabolik hastalık, renal disfonksiyon, hemoglobinopati, immün yetmezlik, nörolojik hastalıklar, gebeler



ILI: Influenza like illness

Etkenler

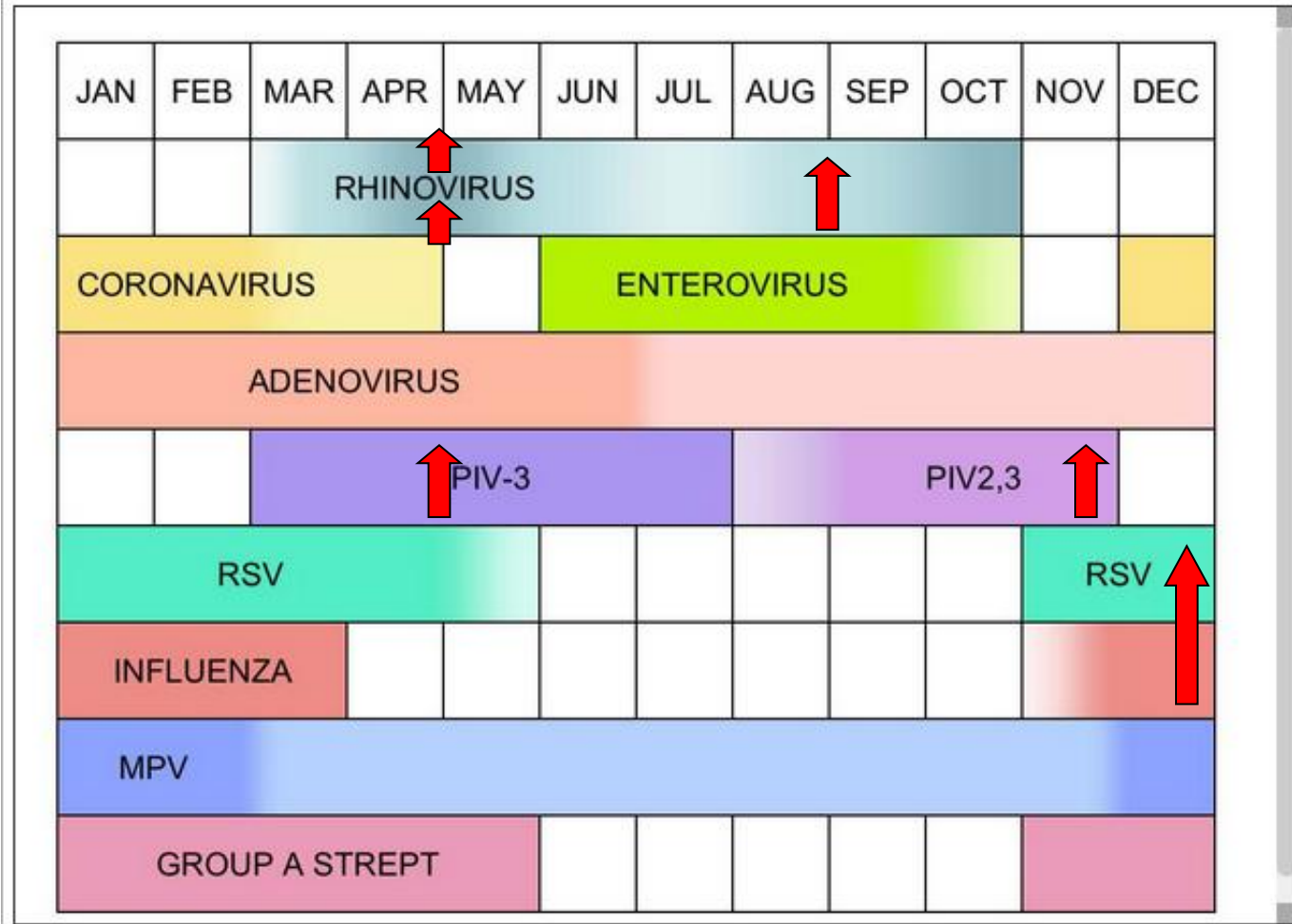
Virus Grubu	Antijenik tip	Yüzde
Rhinovirus	>100	40-50
Coronavirus	5	10-15
Respiratory syncytial virus	2	5
Parainfluenza virus*	5	5
Influenza virus*	3**	25-30
Adenovirus*	51	5-10
Metapneumovirus	2	5
Diğer: Enterovirus, Bocavirus		

*Alt solunum yolu veya sistemik semptomlar sıklıkla eşlik eder.

**Çok sayıda subtip mevcut.

Grip ve Soğuk algınlığı: mevsimsel insidans

Kuzey yarım küre



Bulaş

Solunum (Influenza)

Küçük partikül, uzak mesafe, ASY'na ulaşım

Damlacık (Rhinovirus)

Büyük partikül, kısa mesafe, ÜSY'nda filtrasyon

Temas (RSV, Rinovirus)

Cansız yüzeyler ve insandan insana

Nazal epitel infekte olur. Epitel destrüksiyonu:

+: Influenza V, Adenovirus, Coronavirus

Ø: Rhinovirus, RSV

Klinik

Özellik	Soğuk algınlığı	Grip
Kuluçka	1-3 gün	1-2 gün
Semptomlar	Boğaz ağrısı (ilk) Burun tıkanıklığı Rinore Öksürük (%30) Sistemik bulgu ~ influenza, RSV, adenovirus	Toksik, sistemik semptomlar: ateş, titreme, baş ağrısı, miyalji, halsizlik, anoreksi Oküler bulgular Kuru öksürük, faringeal ağrı, burun tıkanıklığı
Fizik bakı	Nazal sekresyon, mukozal ödem/eritem	Mukozal eritem Servikal LAP
Seyir	1 hafta sürer; %25 olguda 2 hafta	Ateş ~ 3 gün (4-8 gün) ≥1-2 hafta sürer
Komplikasyon	Otitis media (%30) Sinüzit (%8)	Akciğer Akciğer dışı

Grip: komplikasyonlar

Pulmoner

- Primer viral pnömoni
- Sekonder bakteriyel pnömoni
- Bağışıklığı baskılanmış hastalardaki komp'lar
lösemi, kanser, kök hücre nakli
viral saçılım uzun sürer / direnç
- Diğer: krup, kronik bronşit
alevlenmesi

Akciğer dışı

- Miyozit
- Kardiyak: perikardit, miyokardit
Kalp hst: grip gelişirse ölüm
riskinde ↑↑
- Toksik şok sendromu
- SSS: GB sendromu, transvers
miyelit, ensefalit
- Reye sendromu

Grip: pulmoner komplikasyonlar

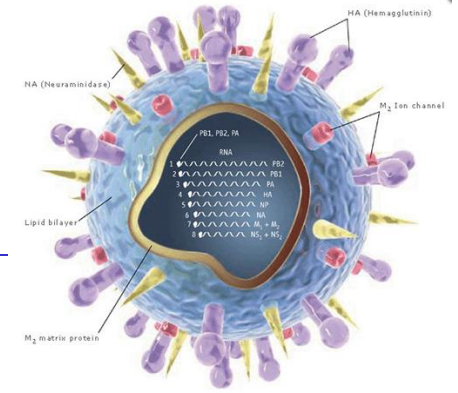
Primer viral pnömoni

- 1957-58 salgını: genç sağlıklı erişkinlerdeki ölümler
- Riskli: romatizmal kalp hst (MS), KVS hst, pulmoner bzk
- Grip → hızla bozulma: ateş, öksürük, dispne, siyanoz
- Bilateral
- Antibiyotik tedavisine yanıt yok
- Pandemiler arasında (günümüzde) nadir

Sekonder bakteriyel pnömoni

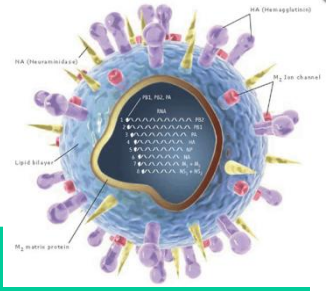
- Riskli: yaşlı, kronik pulmoner, kardiyak, metabolik hst
- Grip → iyileşme (4-14 gün) → ateş, öksürük, balgam
- Konsolidasyon
- *S. pneumoniae*, *H. influenzae*, *S. aureus*
- Çocuklarda TK-MRSA

Influenza virus



- Orthomyxoviridae ailesi
- Major antijenik farklar: 3 farklı tip: A, B ve C
- Genetik organizasyon, yapı, konak, epidemiyoloji, klinik farklar var.
- Benzer: zarf, glikoproteinler, segmentli genom, tek zincirli RNA (negatif)
- İsimlendirme: tip/ilk izole edildiği yer/suş/izolasyon yılı
A/Puerto Rico/8/34
- Influenza A virus: HA (15) ve NA (9)'a göre subtiplere ayrılır:
örn: H1N1 veya H3N2

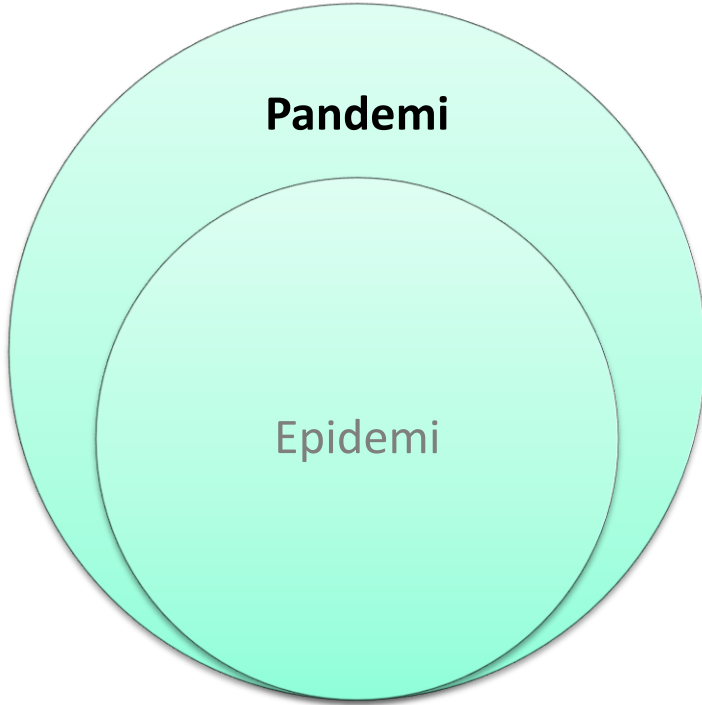
Influenza A, B ve C virusları arasındaki farklar



Özellik	A	B	C
Gen	8 segment	8 segment	7 segment
Yapı	10 viral protein M2	11 viral protein NB	9 viral protein HEF
Konak	İnsan Domuz At Kuş Deniz memelisi Köpek, kedi	İnsan Fok balığı	İnsan Domuz Köpek
Epidemiyoloji	AK ve AS	AS 2 soyun kosirkülasyonu	AS Mütipl varyant
Klinik	Büyük pandemi Gençlerde mortalite yüksek	Şiddetli hastalık (yaşlı ve riskli grupta) Pandemi yok	Hafif hastalık Mevsimsel fark yok

AK: antijenik kayma. AS: antijenik sürüklenme.

Influenza virus: epidemi ve pandemi



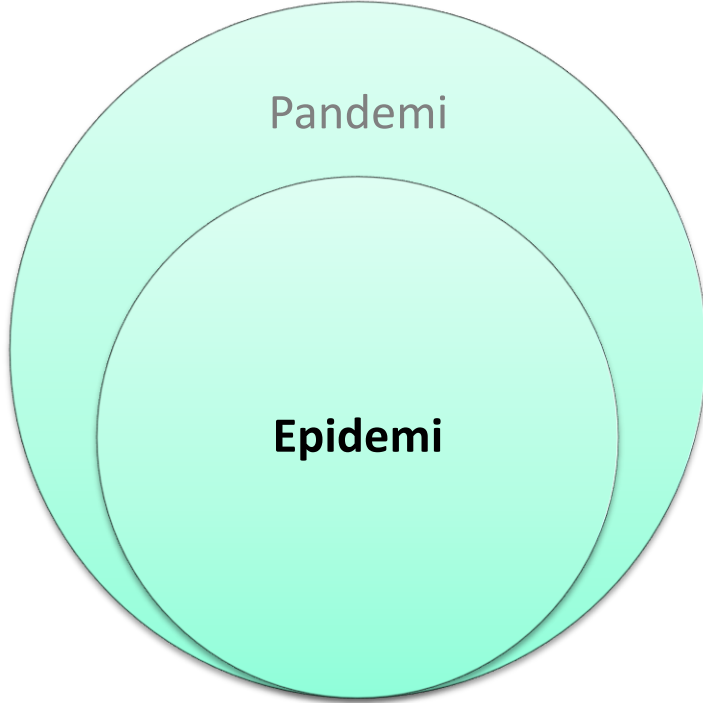
Pandemi:

- Yeni bir virus, toplumda bağışıklık yok
- Şiddetli salgın
- Hızla tüm dünyaya yayılır
- Bulaşıcılığı yüksek
- Mevsimsel bağlantı yok
- Tüm yaş gruplarında atak hızı yüksek
- Sağlıklı genç erişkinlerde mortalite yüksek
- Hastalık birkaç dalga halinde seyreder



- Mart 2009: Meksika H1N1 (domuz gribi)
→ Haziran 2009'da DSÖ pandemi ilan etti

Influenza virus: epidemi ve pandemi



Epidemi:

- Bölgesel: kasaba, şehir, ülke
- Ani başlar, 2-3 haftada pik → 5-6 hf sürer
- Çocuklar: ateşli solunum sistemi hastalığı ilk indikatör
- Takiben erişkinlerde grip benzeri hastalık
- Hastane başvurunda ↑
pnömoni, KOAH alevlenme, krup, KKY
- Okula veya işe gidememe ↑
- Atak hızı: %10-20 → %40-50
duyarlı bireyler tükenene dek devam eder
- Soğuk ve nem bulaşı hızlandırır
kapalı ortam?
- Genelde tek suş, bazen >1 soy veya suş ile

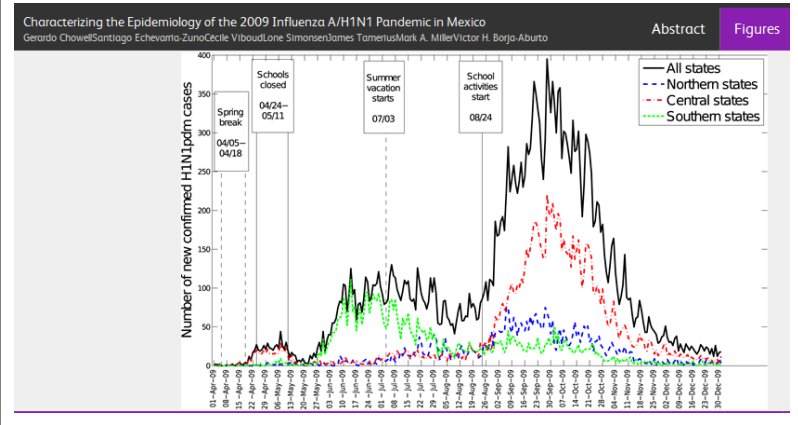
Influenza virus: antijenik varyasyon

Antijenik sürüklenme (drift)

- Minor deęişiklik
- HA molekülündeki 5 major antijenik bölgede oluşan a.a. deęişikliklerinin birikimi
- Influenza A: tek veya az sayıda soy dolaşımında. Nokta mutasyonlar lineer olarak birikir.
- Influenza C: birkaç soy birlikte dolaşımında.
- NA molekülünde epitopik bölgede a.a. substitüsyonu

Antijenik kayma (shift)

- Major deęişiklik: yeni virus
- Influenza A/HxNx → HyNy
- Toplumda bağışıklık yok.
- Birkaç dalga halinde seyreder.
- Toplumda immünitenin artmasıyla sınırlanır.

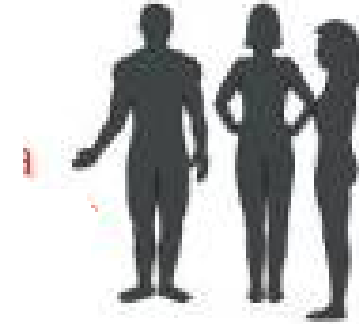


2009 Influenza A/ H1N1 Meksika



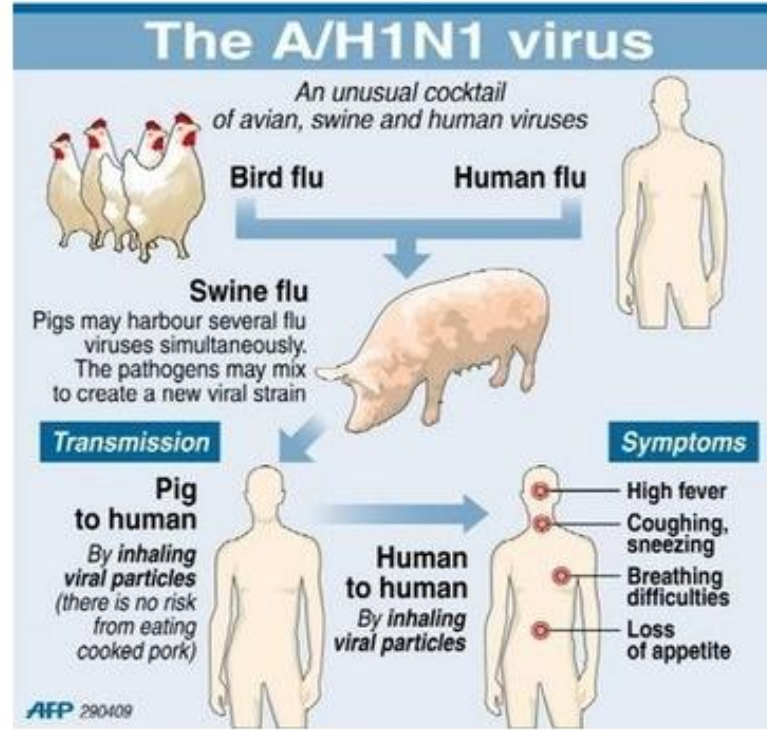
Kuş Gribi

H7, H5, H9 →
Sporadik infeksiyon



- H7:** 2003, Hollanda, kümes hayvanları, H7N7 infeksiyonu .
İnsanlarda konjunktivit, n=1 fatal pnömoni
İtalya: çiftlik çalışanlarında asemptomatik infeksiyona ait serolojik kanıt
- H9:** 1999 ve 2003, Hong Kong, kümes hayvanlarıyla temas
H9N2 ile hafif grip benzeri hastalık
- H5:** H5N1, antijenik olarak farklı >10 "clade" var.
1997: Clade 3 → 2004 Clade 1 → son dalga clade 2
Ateş, öksürük, nefes darlığı, solunum yetmezliği ve MV gereksinimi
Atipik semptomlar: bulantı, kusma, ensefalopati, kanama
Lenfopeni, lökopeni, trombositopeni, transaminaz ↑
Hasta kümes hyv ile yakın temas
Türkiye: 2005 Ekim, Manyas (hindi çiftliği); 12 olgu, 4 ölüm

Domuz Gribi



Haziran 2009: pandemi, 76 ülke, n=35,600 laboratuvar olarak kanıtli olgu
Klinik mevsimsel grip ile benzer; ancak kusma ve ishal daha sik
Meksika n= 6241 kanıtli olgu → n=108 ölüm
olguların %60'ı ≤18 yaş
>60 yaş bireyler: 1/3'ünde mikroaglütinasyon titresi ≥1/160

Semptomatik tedavi

Semptom	Tedavi
Burun tıkanıklığı	Topikal adrenerjik ajanlar Oral adrenerjik ajanlar
Rinore	1. kuşak antihistaminik ilaç İpratropium bromid
Hapşırma	1. kuşak antihistaminik ilaç
Boğaz ağrısı	Asetaminofen İbuprofen ve diğer NSAİİ'lar
Öksürük	1. kuşak antihistaminik ilaç Bronkodilatatörler (?)

Çinko, ekinezya....

Semptomatik tedavi: Kombine preparatlar

Grup	Etken madde
Analjezik	Kodein Propifenazon
Analjezik Antipiretik	Parasetamol (asetaminofen) Asetil salisilik asid
Dekonjestan	Fenilefrin Psödoefedrin
Antihistaminik	Klorfeniramin
Antitüssif	Dekstrometorfan (DSÖ! Gençlerde ölüm) Noskapin Oksolamin

Aferin, Benical, Cetaflu, Coldex, Coldsal, Corsal, Deflu, Katarin, Kongest, Parol hot/cold, Theraflu, Tylol hot/cold/plus

Acetaminophen (paracetamol) for the common cold in adults.

Li S¹, Yue J, Dong BR, Yang M, Lin X, Wu T.

⊕ Author information

Abstract

BACKGROUND: Acetaminophen is frequently prescribed for treating patients with the common cold, but there is little evidence as to whether it is effective.

OBJ

Asetaminofen:

SEA

CINA

Erişkin hasta grubu

SEL

com

parti

outc

RKÇ'lar dahil edilmiş: asetaminofen vs plasebo/tedavi yok

DAT

We

MAI

- Burun tıkanıklığını ve rinoreyi azaltabilir.
- Boğaz ağrısı, halsizlik, hapşırık, öksürük üzerine etkisi yok.

time points. The studies provided sparse information about effects longer than a few hours, as three of four included studies were short trials of only four to six hours. Participants treated with acetaminophen had significant improvements in nasal obstruction in two of the four studies. One study showed that acetaminophen was superior to placebo in decreasing rhinorrhoea severity, but was not superior for treating sneezing and coughing. Acetaminophen did not improve sore throat or malaise in two of the four studies. Results were inconsistent for some symptoms. Two studies showed that headache and aches improved more in the acetaminophen group than in the placebo group, while one study showed no difference between the acetaminophen and placebo group. None of the included studies reported the duration of common cold symptoms. Minor side effects (including gastrointestinal adverse events, dizziness, dry mouth, somnolence and increased sweating) in the acetaminophen group were reported in two of the four studies. One of them used a combination of pseudoephedrine and acetaminophen.

AUTHORS' CONCLUSIONS: Acetaminophen may help relieve nasal obstruction and rhinorrhoea but does not appear to improve some other cold symptoms (including sore throat, malaise, sneezing and cough). However, two of the four included studies in this review were small and allocation concealment was unclear in all four studies. The data in this review do not provide sufficient evidence to inform practice regarding the use of acetaminophen for the common cold in adults. Further large-scale, well-designed trials are needed to determine whether this intervention is beneficial in the treatment of adults with the common cold.

Intranasal ipratropium bromide for the common cold.

AlBalawi ZH¹, Othman SS, Alfaleh K.

⊕ Author information

Abstract

BACKGROUND: The burden of the common cold and expenditure on its treatment is high. Intranasal ipratropium bromide (IB) is a common treatment.

OBJECTIVES: To assess the effectiveness of IB for the common cold compared to placebo or no treatment, and the safety of systemic anticholinergics.

SEARCH METHODS: We searched MEDLINE, EMBASE, and other non-peer-reviewed sources, including LILACS (1985 to 2012).

SELECTION CRITERIA: Randomized controlled trials (RCTs) comparing IB with placebo or no treatment.

DATA COLLECTION AND ANALYSIS: We extracted relevant data and analyzed them using standard methods.

MAIN RESULTS: The overall risk of bias in the included studies was moderate. For people with the common cold, the existing evidence, which has some limitations, suggests that IB is likely to be effective in ameliorating rhinorrhoea. IB had no effect on nasal congestion and its use was associated with more side effects compared to placebo or no treatment although these appeared to be well tolerated and self-limiting. There is a need for larger, high-quality trials to determine the effectiveness of IB in relieving common cold symptoms.

encountered side effects included nasal dryness, blood tinged mucus and epistaxis. The overall risk of bias in the included studies was moderate.

AUTHORS' CONCLUSIONS: For people with the common cold, the existing evidence, which has some limitations, suggests that IB is likely to be effective in ameliorating rhinorrhoea. IB had no effect on nasal congestion and its use was associated with more side effects compared to placebo or no treatment although these appeared to be well tolerated and self-limiting. There is a need for larger, high-quality trials to determine the effectiveness of IB in relieving common cold symptoms.

Update of

Cochrane Database Syst Rev. 2011;(7):CD008231.

Intranasal ipratropium bromid:

Çocuk ve erişkin hasta grubu

7 RKÇ; n=2144: İB vs plasebo/tedavi yok

- Rinoreyi azaltmada etkili olabilir.
- Nazal konjesyona etkisi yok.
- İB: daha fazla yan etki: kendi kendini sınırlayan, tolere edilebilir
- Daha büyük çalışmalar gerekli...

Zinc for the common cold.

Singh M¹, Das RR.

+ Author information

Çinko
Randomize, çift kör, plasebo kontrollu çalışmalar
- Tedavi grubu: birbirini izleyen ≥ 5 gün çinko alan (16 çalışma, n=1387)
ilk 24 saat içinde, ≥ 75 mg/gün alınırca semptomları azaltır.
- Profilaksi grubu: aylarca çinko alan (2 çalışma, n=394)
öneri için veri yetersiz

common cold symptoms (MD -1.06, 95% CI -2.36 to 0.23) ($P = 0.11$) (I(2) statistic = 84%). The proportion of participants who were symptomatic after seven days of treatment was significantly smaller (odds ratio (OR) 0.45, 95% CI 0.20 to 1.00) ($P = 0.05$) than those in the control, (I(2) statistic = 75%). The incidence rate ratio (IRR) of developing a cold (IRR 0.64, 95% CI 0.47 to 0.88) ($P = 0.006$) (I(2) statistic = 88%), school absence ($P = 0.0003$) and prescription of antibiotics ($P < 0.00001$) was lower in the zinc group. Overall adverse events (OR 1.58, 95% CI 1.19 to 2.09) ($P = 0.002$), bad taste (OR 2.31, 95% CI 1.71 to 3.11) ($P < 0.00001$) and nausea (OR 2.15, 95% CI 1.44 to 3.23) ($P = 0.002$) were higher in the zinc group. The very high heterogeneity means that the averaged estimates must be viewed with caution.

AUTHORS' CONCLUSIONS: Zinc administered within 24 hours of onset of symptoms reduces the duration of common cold symptoms in healthy people but some caution is needed due to the heterogeneity of the data. As the zinc lozenges formulation has been widely studied and there is a significant reduction in the duration of cold at a dose of ≥ 75 mg/day, for those considering using zinc it would be best to use it at this dose throughout the cold. Regarding prophylactic zinc supplementation, currently no firm recommendation can be made because of insufficient data. When using zinc lozenges (not as syrup or tablets) the likely benefit has to be balanced against side effects, notably a bad taste and nausea.

Non-steroidal anti-inflammatory drugs for the common cold.

Kim SY¹, Chang YJ, Cho HM, Hwang YW, Moon YS.

⊕ Author information

Abstract

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pooled data using the fixed- and random-effects models.

NSAİİ

- Total semptom skorunda anlamlı azalma yok.
- Süreyi kısaltmıyor.
- Analjezik etkisi iyi: baş ağrısı, kulak ağrısı, kas-eklem ağrısı
- Yarar/zarar iyi değerlendirilmeli

MAIN RESULTS: We included nine RCTs with 1069 participants, describing 37 comparisons: six were NSAIDs versus placebo and three were NSAIDs versus NSAIDs. The overall risk of bias in the included studies was mixed. In a pooled analysis, NSAIDs did not significantly reduce the total symptom score (SMD -0.40, 95% CI -1.03 to 0.24, three studies, random-effects model), or duration of colds (MD -0.23, 95% CI -1.75 to 1.29, two studies, random-effects model). For respiratory symptoms, cough did not improve (SMD -0.05, 95% CI -0.66 to 0.56, two studies, random-effects model) but the sneezing score significantly improved (SMD -0.44, 95% CI -0.75 to -0.12, two studies, random-effects model). For outcomes related to the analgesic effects of NSAIDs (headache, ear pain, and muscle and joint pain) the treatment produced significant benefits. The risk of adverse effects was not high with NSAIDs (RR 2.94, 95% CI 0.51 to 17.03, two studies, random-effects model) and it is difficult to conclude that such drugs are not different from placebo.

AUTHORS' CONCLUSIONS: NSAIDs are somewhat effective in relieving discomfort caused by a cold but there is no clear evidence of their effect in easing respiratory symptoms. The balance of benefit and harms needs to be considered when using NSAIDs for colds.

Update of

Cochrane Database Syst Rev. 2009;(3):CD006362.

Heated, humidified air for the common cold.

Singh M¹, Singh M.

⊕ Author information

Abstract

BACKGROUND: Heated, humidified air has long been thought to help mucus drain better and heat may destroy the cold virus.

OBJECTIVES: To assess the effects of inhaling heated, humidified air on viral shedding and nasal resistance.

SEARCH METHODS: In this updated review we searched Cochrane Central (March 2013) and Current Contents (1994 to March 2013).

SELECTION CRITERIA: Randomised controlled trials comparing heated, humidified air to placebo or no treatment in experimentally induced common cold.

DATA COLLECTION AND ANALYSIS: The two review authors independently reviewed all retrieved articles and excluded any articles, editorials and abstracts with inadequate outcome descriptions. The studies we included were subjected to a methodological assessment.

MAIN RESULTS: We included six trials (394 trial participants). Three trials in which patient data could be pooled found benefits of steam for symptom relief for the common cold (odds ratio (OR) 0.31; 95% confidence interval (CI) 0.16 to 0.60). However, results on symptom indices were equivocal. No studies demonstrated an exacerbation of clinical symptom scores. One study conducted in the USA demonstrated worsened nasal resistance, while an earlier Israeli study showed improvement. One study examined viral shedding and antibody titres in nasal washings; there was no change in either between treatment and placebo groups. Minor side effects (including discomfort or irritation of the nose) were reported in some studies.

AUTHORS' CONCLUSIONS: Steam inhalation has not shown any consistent benefits in the treatment of the common cold, hence is not recommended in the routine treatment of common cold symptoms until more double-blind, randomised trials with a standardised treatment modality are conducted.

Update of

[Cochrane Database Syst Rev. 2011;\(5\):CD001728.](#)

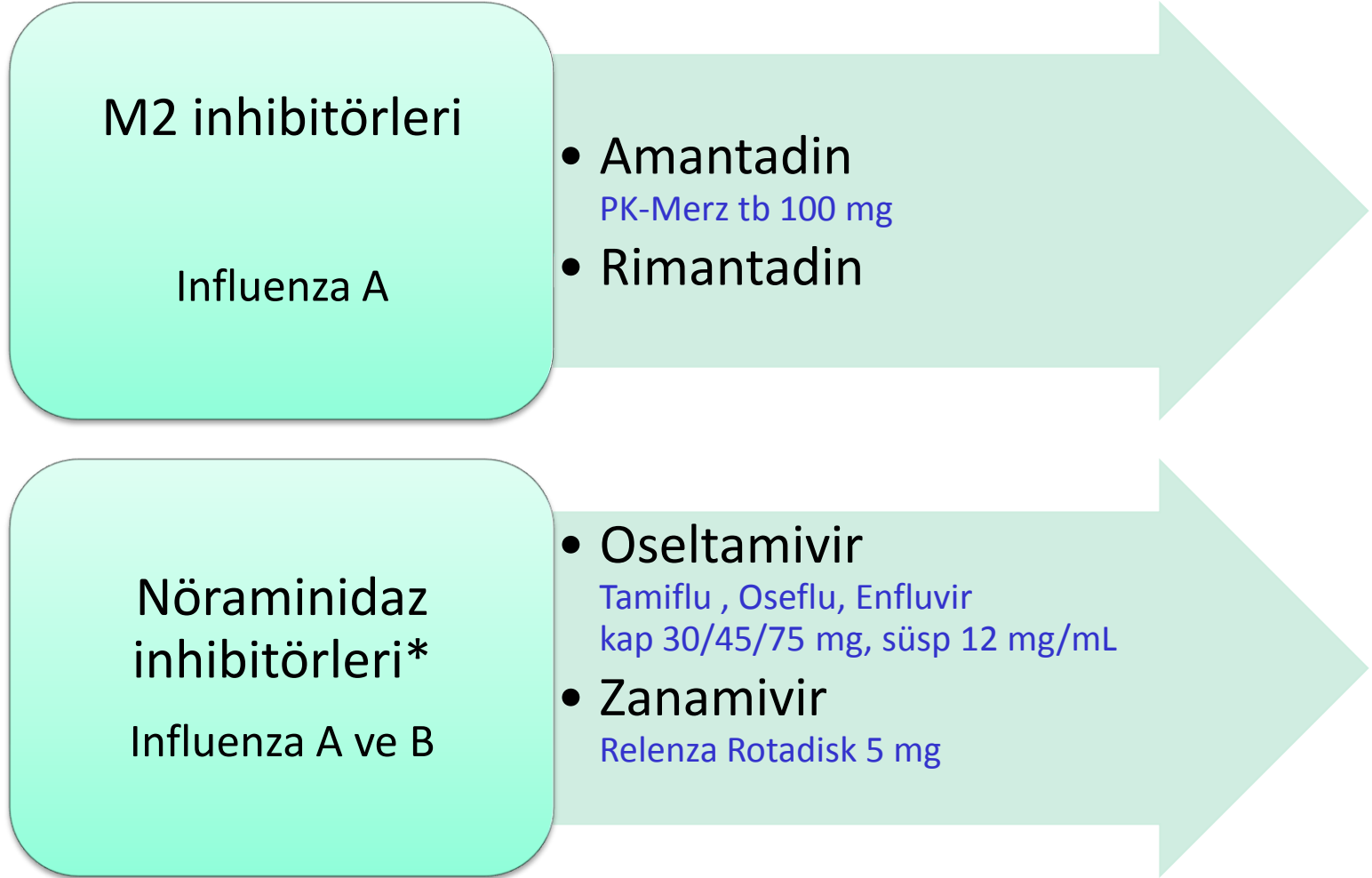
Isıtılmış nemli hava

6 çalışma, n=394

Buhar tedavisinin etkinliği kesin değil.

Rutin olarak önerilmez.

Influenza: Antiviral tedavi



*↓: viral saçılım, semptom skoru, semptom süresi, otitis media sıklığı, nazal mukus miktarı.
Erken tedavi ile normal günlük aktivitelere erken daha erken dönme.

Nöraminidaz inhibitörleri

Oseltamivir

- Oral (etil ester), BY iyi
- Kc: esteraz ile aktif metabolit
- İdrar tübüler sekresyonla atılım
- YE: bulantı
- CrCl <30 ml/dk ise doz ↓
- Karaciğer yetmezliği: ?
- Erişkin: tedavi: 2*75 mg, 5 gün
profilaksi: 1*75 mg, 10 gün
- Çocuk: tedavi yaş sınırı yok (>14 gün), profilaksi ≥3 ay için endikasyonu var.

Zanamivir

- Oral inhalasyon
- Lokal kullanım
- YE: ishal, bulantı (~ plasebo)
- Bronkospazma yol açabilir.
- Böbrek yetm: doz değ. gerekmez.
- Erişkin: tedavi: 2*20 mg, 5 gün
profilaksi: 1*20 mg, 10 gün
- Çocuk: tedavi ≥7 yaş, profilaksi ≥ 5 yaş için endikasyonu var.

Influenza virus: antiviral ilaçlara direnç

Influenza A:

- Mart 2009: ABD, H1N1: oseltamivir dirençli
H3N2: oseltamivir duyarlı
- >2009: dolaşımdaki H1N1 (S-OIV, domuz gribi) zanamivir ve oseltamivir duyarlı (tanımlanmış dirençli suşlar var!)
- Zanamivir direnci yok.

Influenza B:

- Zanamivir ve oseltamivir duyarlı.

Antiviral tedavi			
H1N1	S-OIV	H3N2	H5N1
M2 inh	NA inh	Oseltamivir	Oseltamivir Yüksek doz Uzun süre

Korunma

1

- Kemoprofilaksi
- Oseltamivir 1*75 mg, 10 gn (>3 ay)
- Zanamivir 1*20 mg, 10 gn (≥5 yaş)

2

- İmmnoprofilaksi: aşı

3

- Dięer inko, C vit, E vit, ekinezya, ginseng probiyotik, egzesiz, el yıkama

Recommended composition of influenza virus vaccines for use in the 2013-14 northern hemisphere influenza season

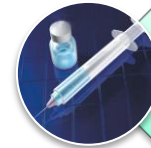
21 February 2013

It is recommended that trivalent vaccines for (northern hemisphere winter) contain the following

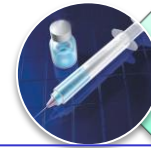
- an A/California/7/2009 (H1N1)pdm09-like virus
- an A(H3N2) virus antigenically like the cell culture adapted A/Victoria/361/2011^a;
- a B/Massachusetts/2/2012-like virus.



Influenza A virus
(H1N1)



Influenza A virus
(H3N2)



Influenza B virus

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Brisbane/60/2008-like virus^c.

- ^a A/Christchurch/1/2009-like virus
- ^b A/Texas/50/2007-like virus or other A(H3N2) prototype virus
- ^c B/Brisbane/3/2007-like virus

* It is recommended

component because of antigenic changes in earlier A/Victoria/361/2011-like vaccine viruses (such as IVR-165) resulting from adaptation to propagation in eggs.

ABD: dolaşımda en sık olan 2009 H1N1 virus (%98)
CDC, 20 Şubat 2014 MMWR: 2013-2014 mevsimi, aşı etkinliği
Tüm yaş grupları: %62
≥65 yaş: %52

**2013-2014 GRİP SEZONU SENTİNEL VE NON-SENTİNEL (TOPLAM)
SÜRVEYANS SONUÇLARI (30 EYLÜL 2013'DEN
İTİBAREN KÜMÜLATİF TOPLAM)**

	THSK VİROLOJİ LAB.		İSTANBUL ÜNİV.		İSTANBUL HSL		TOPLAM	
	Sayı	%	Sayı	%	Sayı	%	Sayı	%
Gelen Numune Sayısı	1632		582		274		2488	
Çalışılan Numune	1632		567		269		2468	
Toplam Pozitiflik*	412	25	186	33	39	14	637	26
İnf B	25		1		1		27	
İnf A H1N1 Pandemik	10		1		1		12	
İnf A/H3	377		184		37		598	
Rhino Virüs	-		-		-		-	
RSV	-		-		-		-	
Adenovirus	-		-		-		-	
Parainfluenza	-		-		-		-	
Birden fazla etken	-		-		-		-	
Coronavirüs	-		-		-		-	
Human Boca Virüs	-		-		-		-	
Enterovirüs	-		-		-		-	
Hum. Metapneumovirüs	-		-		-		-	
TOPLAM	412		186		39		637	



*Toplam pozitiflik İnf A ve İnf B için hesaplanmaktadır.

Grafik-1: Ülkemizde Sentinel İnfluenza Sürveyansı İle Tespit Edilen Grip Benzeri Hastalık İnsidansı ve Numunelerin İnfluenza Pozitiflik Oranı

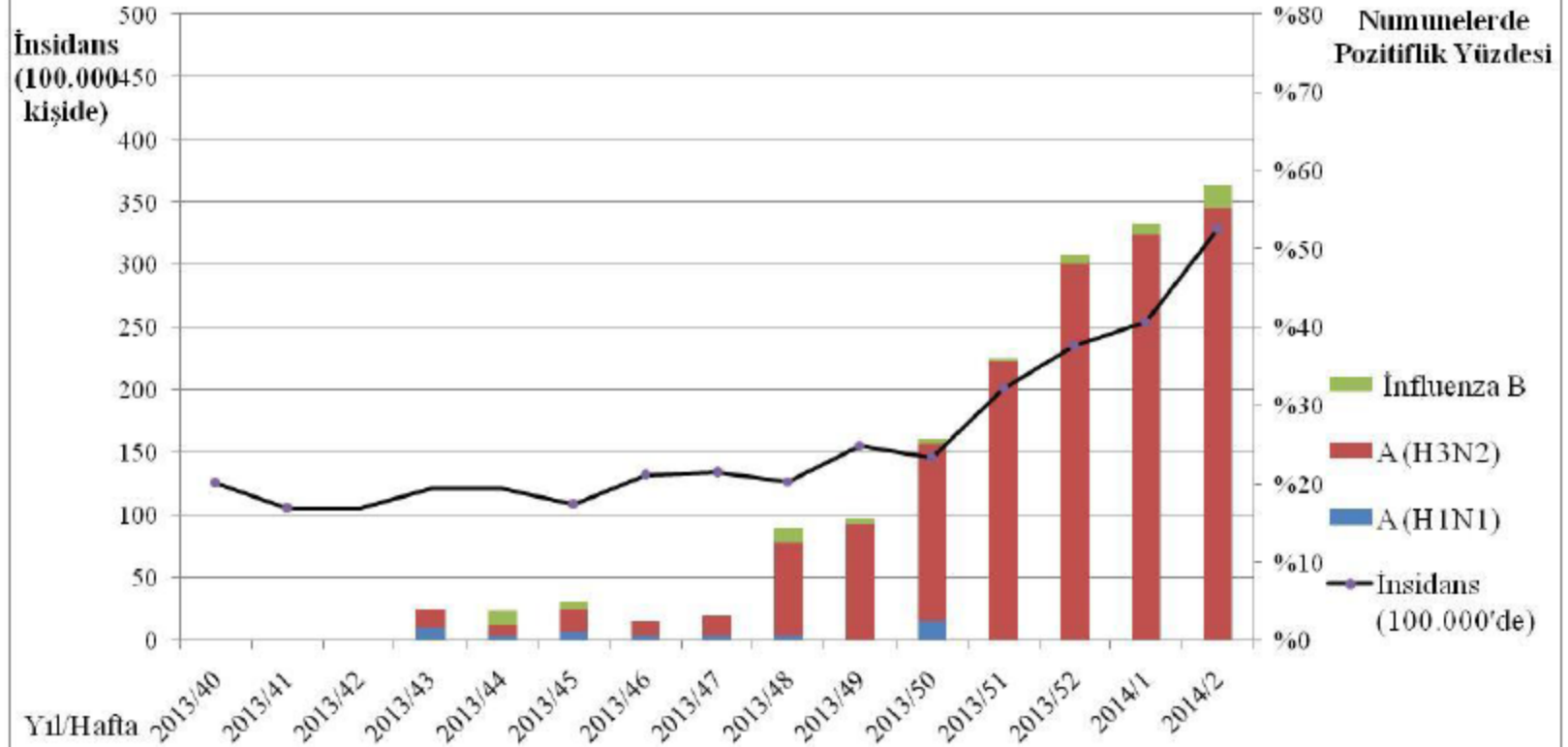


Figure 1. Recommended adult immunization schedule, by vaccine and age group¹

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza ^{2*}		1 dose annually					

Figure 2. Vaccines that might be indicated for adults based on medical and other indications¹

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ^{4,6,7,8,15}	HIV infection CD4+ T lymphocyte count ^{4,6,7,8,15}		Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement component deficiencies) ^{8,14}	Chronic liver disease	Diabetes	Healthcare personnel
			< 200 cells/μL	≥ 200 cells/μL								
Influenza ^{2*}			1 dose IIV annually		1 dose IIV or LAIV annually		1 dose IIV annually				1 dose IIV or LAIV annually	

2. Influenza vaccination

- Annual vaccination against influenza for older.
- Persons aged 6 months or older with no allergy to eggs, can receive influenza vaccine. The intranasal formulation should be used.
- Adults aged 18 to 49 years should receive RIV. RIV does not contain any egg proteins.
- Healthy, nonpregnant persons aged 18 years or older should receive either intranasally or IIV. Health care personnel and those who require care in a long-term care facility should receive LAIV.
- The intramuscularly or intranasally for persons aged 18 years or older.
- Adults aged 65 years or older can receive the standard-dose IIV or the high-dose IIV (Fluzone High-Dose).

Türkiye: SUT

- ≥65 yaş
- Yaşlı bakımevi, huzurevinde kalanlar
- Kronik akciğer, kalp-damar, böbrek hastalığı
- Diyabet
- Kan hastalığı
- Bağışıklığı baskılanmış
- 6 ay – 18 yaş: uzun süreli aspirin kullananlar

Sağlık çalışanları: ücretsiz uygulanmakta

Influenza aşısı: Türkiye

Hum Vaccin Immunother. 2013 Dec;9(12):2618-26. doi: 10.4161/hv.25826. Epub 2013 Jul 25.

The effect of physicians' awareness on influenza and pneumococcal vaccination rates and correlates of vaccination in patients with diabetes in Turkey: an epidemiological Study "diaVAX".

Satman I¹, Akalin S², Cakir B³, Altinel S⁴, diaVAX Study Group.

⊕ Author information

Abstract

We aimed to examine the effect of increased physician awareness on the rate and determinants of influenza and pneumococcal vaccinations in diabetic patients. Diabetic patients (n = 5682, mean [SD] age: 57.3 [11.6] years, 57% female) were enrolled by 44 physicians between Sept 2010 and Jan 2011. The physicians were initially questioned regarding vaccination practices, and then, they attended a training program. During the last five years, the physicians recommended influenza and pneumococcal vaccinations to 87.9% and 83.4% of the patients, respectively; however, only 27% of the patients received the influenza and 9.8% received the pneumococcal vaccines. One year after the training, the vaccination rates increased to 63.3% and 40.7%, respectively. The logistic regression models revealed that variables which increased the likelihood of having been vaccinated against influenza were: longer duration of diabetes, presence of hyperlipidemia and more use of concomitant medications whereas more use of anti-hyperglycemic medications was associated with increased odds of vaccination. On the other hand, older age, longer duration of diabetes and presence of a cardiovascular disease were variables which decreased the likelihood of having been vaccinated against pneumococcal disease during the past five years. However, during the study period, variables which decreased the odds of having been vaccinated included: older age and anti-hyperglycemic medications for influenza, and presence of hyperlipidemia and a family history of hypertension for pneumococcal disease. While variables which increased the likelihood of vaccination in the same period were: increased number of co-morbidities for influenza, and family history of diabetes for pneumococcal disease. We conclude that increased awareness of physicians may help improve vaccination rates against influenza and pneumococcal disease. However, diabetic patients with more severe health conditions are less likely to having been vaccinated. More structural/systematic vaccination programs are needed to increase the vaccination rates in patients with diabetes.

Epidemik viral solunum yolu infeksiyonları

2014 Son durum...

MERS-CoV

- Ürdün 2012
- N=178 olgu, 76 ölüm (%42)
- İnsandan insana bulaş
- Açıklanamayan şiddetli ASY ve 14 gün içinde endemik bölgeye seyahat
- Destek tedavi

SARS

- Güney Çin, 2002 → 25 ülke
- N=8000 olgu, 774 ölüm

Influenza A H7N9

- 2010, Çin, öldürücü
- Kümes hayvanı teması
- Ocak 2014: n=347 olgu, ölüm %21
- İnsandan insana bulaş?
- Kuşlarda bulgu yok

Influenza A H5N1

- Benzer coğrafi dağılım
- Mortalite yüksek: %59
- Kuşlarda hızla ölümcül

Yeni...

- H3N2v
 - H10N8
 - H6N1
- Asya'da

Hepsi zoonoz, uçakla yayılabilir... tehdit!

Önlem...

Standart önlemler

→ solunum hijyeni

öksüren hapşıran hastalar

- Kağıt mendil/peçete ile ağzını kapatması
- Cerrahi maske
- >1 metre mesafe



Genişletilmiş

- Solunum izolasyonu
<5 μ , negatif basınçlı oda,
hastaya cerrahi maske
personele N95 maske
- Damlacık izolasyonu
> 5 μ , havada asılı kalmaz
yakın temasla bulaşır
hastaya cerrahi maske
>1 metre mesafe
Influenza V, Adenovirus
- Temas izolasyonu



Teşekkür ederim...