



GÜNAYDIN



SENDROMİK YAKLAŞIM NEDİR?

DR.GÜLAY KORUKLUOĞLU
HALK SAĞLIĞI GENEL MÜDÜRLÜĞÜ
ULUSAL VİROLOJİ REFERANS LABORATUVARI



- **Sendrom;** belirli bir hastalığı karakterize eden veya öneren bir dizi belirti ve bulgu olarak tanımlanmaktadır.
- **Kalıtsal** nedenlerle ortaya çıkan sendromlar sıklıkla hastalığın fizyopatolojisinin açıklanamadığı durumlardır.
- **Edinsel** nedenler içinde de en sık karşımıza çıkan enfeksiyon ajanlarıdır. Birçok farklı ajan organizmada yerleşim gösterdikleri ve etkiledikleri sistemlere göre aynı semptomlarla benzer klinik tablolara sebep olabilir.

- Sendromik yaklaşımın iki temel kullanım alanı vardır
- Sendromik vaka yönetimi
- Sendromik surveyans

Sendromik vaka yönetimi

Semptom gruplarının tanımlanması ve bir sendrom üretmekten sorumlu mikroorganizmanın tanısının konulması ve etkene yönelik tedavisinin planlanması esasına dayanır.

Avantajları:

- Hızlı laboratuvar tanı
 - Ko-enfeksiyonların saptanması
 - Etkili tedavilerin planlanması
 - Kontrollü antibiyotik kullanımı
 - Ön tanıda kolaylık
 - Gelişebilecek komplikasyonların öngörülmesine katkı
-
- Salgın için erken uyarı
 - Dolaşımda bulunan enfeksiyon etkenleri ile ilgili güncel durumun izlenmesi /epidemiyolojik monitorizasyon

Semin Respir Infect. 1994 Sep;9(3):180-8.

Community-acquired pneumonia: the future of the microbiology laboratory: focused diagnosis or syndromic management?

MacDonald KS¹, Scriver SR, Skulnick M, Low DE.

EYLÜL 1994

⊕ Author information

Abstract

Geleneksel ampirik tedaviyi kolaylaştırmak için toplum kökenli pnömoninin tipik ve tipik olmayan pnömoni olarak sınıflandırılması artık optimal değildir.

Legionella species, Chlamydia pneumoniae, and Pneumocystis carinii in addition to the traditional community pathogens. The variability of presentation in severely ill or compromised hosts makes clinical prediction of cause inadequate. A more rational approach may involve the

Geleneksel toplum patojenlerine ek olarak Legionella türleri, Chlamydia pneumoniae ve Pneumocystis carinii de dahil olmak üzere toplum kökenli pnömoni olarak ortaya çıkan tanınmış tedavi edilebilir patojenlerin artan bir spektrumu vardır.

common pathogens such as Streptococcus pneumoniae, Haemophilus influenzae, and Staphylococcus aureus will require not only a critical review of empirical therapy, but an increased emphasis on epidemiological monitoring of resistance by laboratories and effective

Etiyolojik tanı daha agresif bir şekilde araştırılmalı ve mikrobiyoloji laboratuvarları ağır hastalarda geniş çaplı patojenlerin etkili ve hızlı bir şekilde tanısında en iyi şekilde kullanılmalıdır.

Syndromic approaches to disease management

David Mabey, Theo Vos

LANCET, HAZİRAN 1997

The 1993 *World Development Report*¹ suggested that priority should be given to the treatment of certain common and life-threatening conditions at the primary health care level. An economic analysis had shown that treating these conditions with simple interventions would be cost-effective. Immunisation, oral rehydration therapy, and antibiotics are interventions which are available at the primary health care level. The age of onset of acute respiratory infections (ARI) is high in the tropics, and treatment of acute diarrhoea (STD) is common. Acute diarrhoea, acute respiratory illness and acute respiratory infections are prevalent and transmissible.

Most health centres and dispensaries in developing countries do not have access to reliable laboratory facilities, and it is not possible to make an aetiological diagnosis. Treatment, therefore, has to be based on a syndromic assessment—the patient has watery diarrhoea, a cough, a genital ulcer, or a urethral discharge, and is treated for the likely causes of that syndrome.

WHO has been promoting syndromic management for STD.² Even where laboratory facilities are available, it is

advisable to give treatment for these conditions at the first visit (when test results are often not available) since this will prevent sequelae and reduce the risk of further transmission. Several other conditions are usually treated

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DSÖ; gelir düzeyi düşük ülkelerde akut ishal ve akut solunum yolu enfeksiyonları için basit sendromik yaklaşım ve algoritmalar geliştirmektedir.

unthreatening condition (figure 1); WHO and UNICEF have therefore developed an integrated approach.³ Since 1993, materials have been developed to train health workers at first-level outpatient facilities to manage sick children following standard guidelines (panel) with the basic structure of the earlier ones for diarrhoea and ARI. Colour-coded triage algorithms require just a few key symptoms and signs to classify the severity of the condition and to point to appropriate treatment and advice for the child's mother.

Syndromic treatment must be based on sound knowledge of the likely aetiology of the syndrome in a particular group and geographical location and of the

Lancet 1997; **349** (suppl III): 26–28

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London WC1E 7HT, UK (Prof D Mabey FRCP, T Vos MD)

Correspondence to: Prof David Mabey

RESEARCH ARTICLE

Syndromic Approach to Arboviral Diagnosis for Global Travelers as a Basis for Infectious Disease Surveillance

NATIONAL GUIDELINES FOR THE MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS USING SYNDROMIC APPROACH



Citation: Ocker JFP, van der Vliet A, et al. (2015) National Guidelines for the Management of Sexually Transmitted Infections Using Syndromic Approach. PLoS Negl Trop Dis 9(9): e1004673. doi:10.1371/journal.pntd.1004673

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Evaluation of syndromic management guidelines for treatment of sexually transmitted infections in South African women

Laëtte van der Eem^{1,2}, Jan Henk Dubbink^{1,2,4}, Helen E. Struthers^{1,5}, James A. McIntyre^{1,6}, Sander Ouburg⁶, Servaas A. Morré^{1,4}, Marleen M. Kock^{2,8} and Remco P.H. Peters^{1,7}

1 *Avond Health Institute, Johannesburg and Tyngene, South Africa*

Gastroenteritis and Diarrhoea: A syndromic approach to laboratory diagnosis of disease

UK Standards for Microbiology Investigations (UK SMI) Joint Working Group for Syndromic Algorithms, Ayuen Lual, Standards Unit, Public Health England - Colindale



INTRODUCTION

Of infectious diseases, gastroenteritis and diarrhoea are the most common and the most difficult to diagnose. The aim of this study was to evaluate the syndromic approach to the diagnosis of gastroenteritis and diarrhoea in a tertiary care hospital in Johannesburg, South Africa. The study was based on a syndromic approach to the diagnosis of gastroenteritis and diarrhoea in a tertiary care hospital in Johannesburg, South Africa. The study was based on a syndromic approach to the diagnosis of gastroenteritis and diarrhoea in a tertiary care hospital in Johannesburg, South Africa.

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S7: GASTROENTERITIS AND DIARRHOEA – SYNDROMIC ALGORITHMS^{1,4}

Figure 1. UK SMI S7 – Gastroenteritis and Diarrhoea – Syndromic Cases



Figure 2. UK SMI S7 – Gastroenteritis and Diarrhoea – Enterovirus



Figure 3. UK SMI S7 – Gastroenteritis and Diarrhoea – Rotavirus



Figure 4. UK SMI S7 – Gastroenteritis and Diarrhoea – Adenovirus



Figure 5. UK SMI S7 – Gastroenteritis and Diarrhoea – Shigella



Figure 6. UK SMI S7 – Gastroenteritis and Diarrhoea – Cryptosporidium



DISCUSSION

The inclusion of enteric fever is consistent with the syndromic approach to the diagnosis of gastroenteritis and diarrhoea in a tertiary care hospital in Johannesburg, South Africa. The study was based on a syndromic approach to the diagnosis of gastroenteritis and diarrhoea in a tertiary care hospital in Johannesburg, South Africa.

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Sendromik vaka yönetiminde;

örneklerin, hangi tanı testleri için, ne zaman gönderileceğine dair izlenebilecek bir akış şemaları;

Sistemlere yönelik;

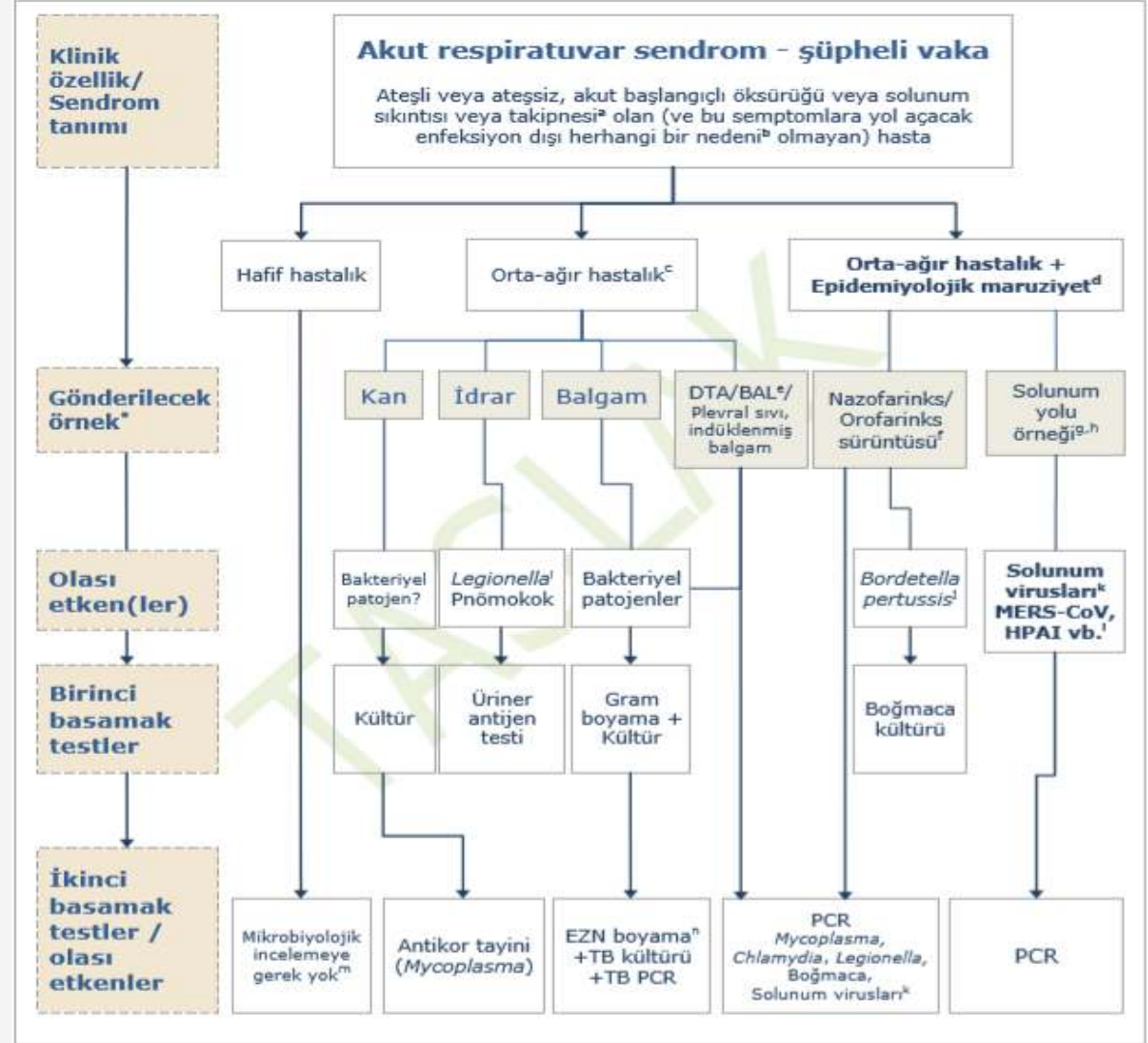
- Solunum yolu sistemi,
- Gastrointestinal sistem
- Genitoüriner sistem
- Santral sinir sistemi

Semptomlara yönelik:

Ateş , sarılık, döküntü, hemoraji gibi belli bir semptom grubuna yönelik olarak hazırlanabilir.

Ek-1 Akut respiratuvar sendrom tanı yaklaşımı akış şeması

Solunum sistemi



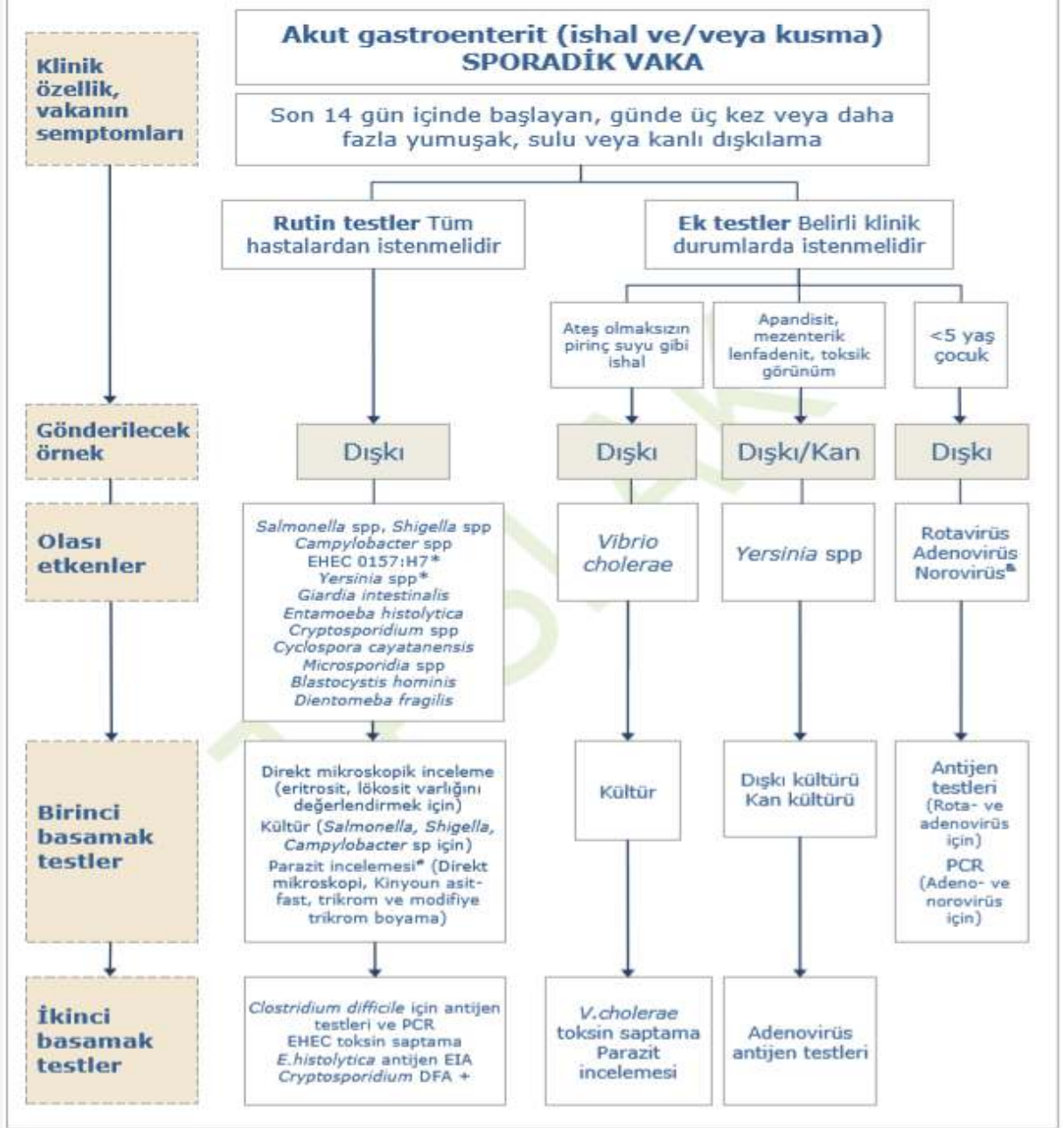
* Örnekler mümkün olduğunca antibiyotik tedavisi başlanmadan önce alınmalıdır.

^a **Erişkin hastada takipne:** Solunum sayısının 20/dk'nın üzerinde olmasıdır. Solunum sayısı >30/dk üzerinde olan hastalar orta-ağır hasta olarak değerlendirilmelidir.

Çocuk hastada takipne: Solunum sayısının, 0-2 ay arası bebeklerde >60/dk, 2-12 ay bebeklerde >50/dk, 1-5 yaş arası çocuklarda >40/dk ve 5 yaş üstü çocuklarda >20/dk olmasıdır.

^b Akut respiratuvar sendrom vaskülitler, alveoler hemorajik sendromları, akut interstisyel akciğer hastalıkları (eozinofilik pnömoni gibi), ilaç reaksiyonlarına bağlı diffüz alveoler hasar, kalp böbrek yetmezliği ve sıvı yüklenmesi gibi hidrostatik ödeme bağlı solunum sıkıntısı ile karışabilir.

Gastrointestinal sistem



* Direkt bakıda eritrosit var ise bu etkenlerin de kültürü yapılmalıdır.

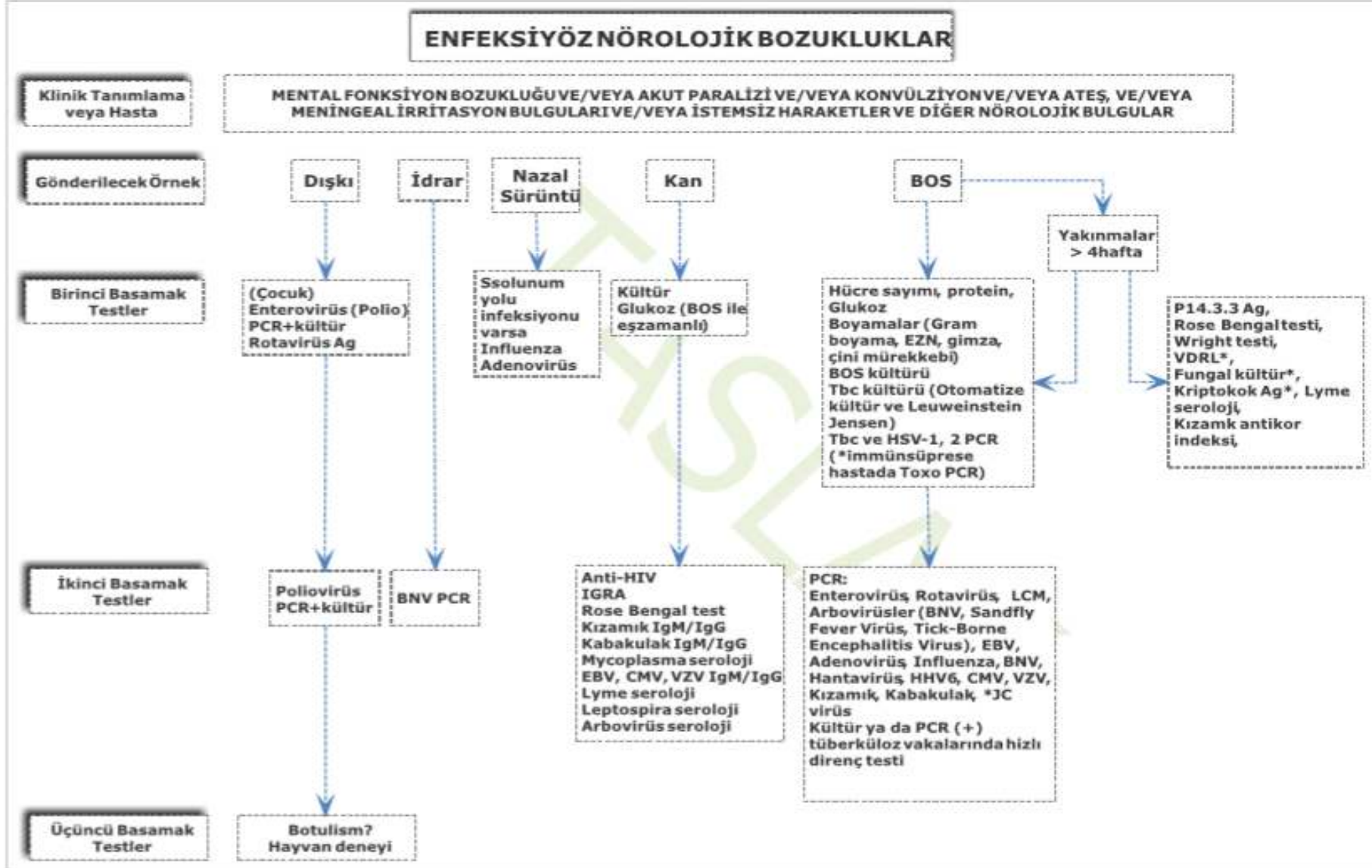
* Dışkıda parazit incelemesi hem direkt hem de konsantrasyon yöntemleri ile yapılmalıdır; boyama yöntemleri lugol, trikrom, modifiye asit-fast, modifiye trikromu içerir.

^a Norovirüs pozitif bulunan çocuk hastaların ishali olan erişkin yakınları da norovirüs enfeksiyonu yönünden değerlendirilmelidir.

Santral sinir sistemi

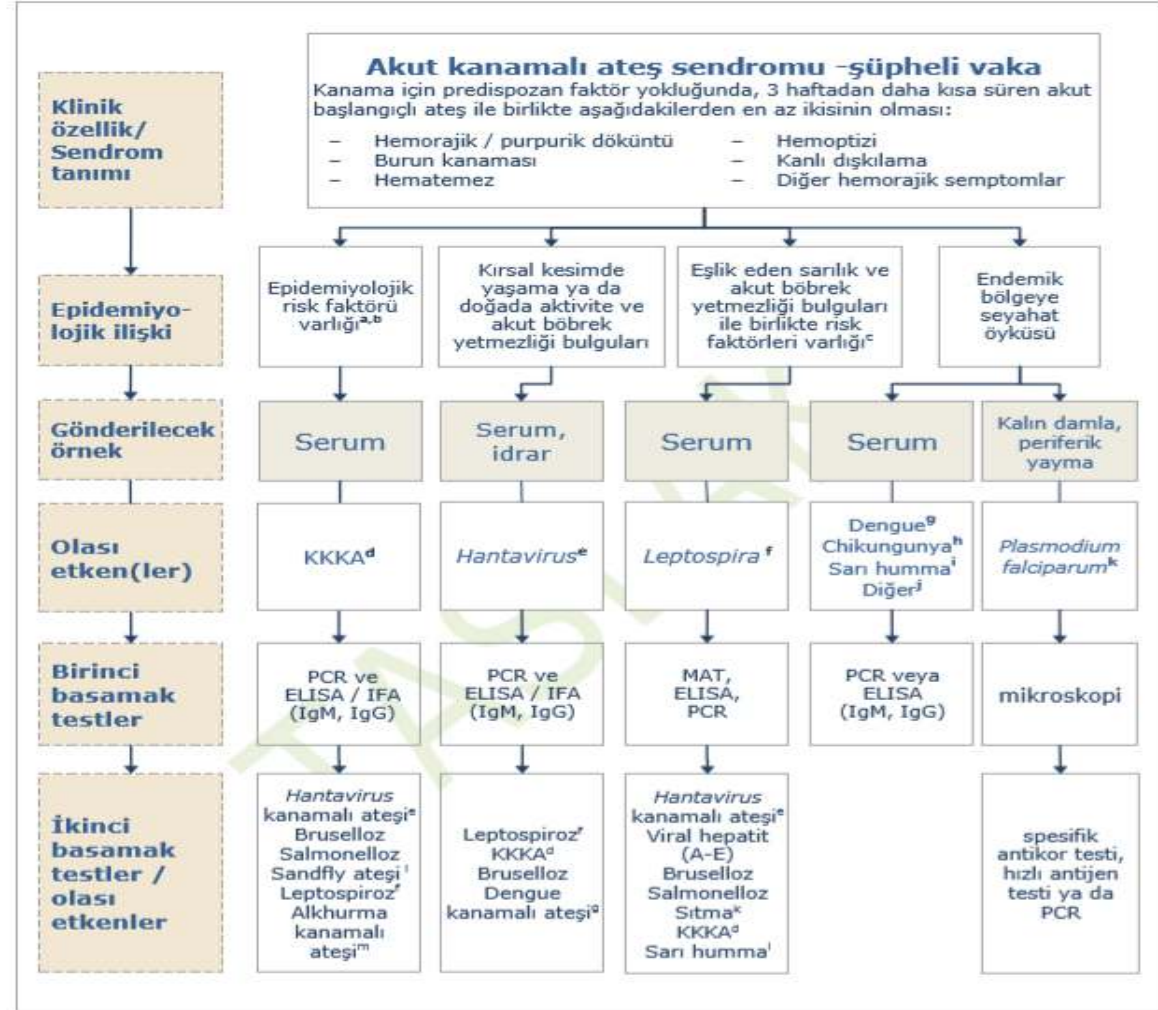
Eklər

EK-1 Akut nörolojik sendrom tanı akış şeması^{8,9,10}



Ek-2 Akut kanamalı ateş sendromu - tanı yaklaşımı akış diyagramı

Viral Hemorajik ateş Sendromu



^a Epidemiyolojik risk faktörleri:

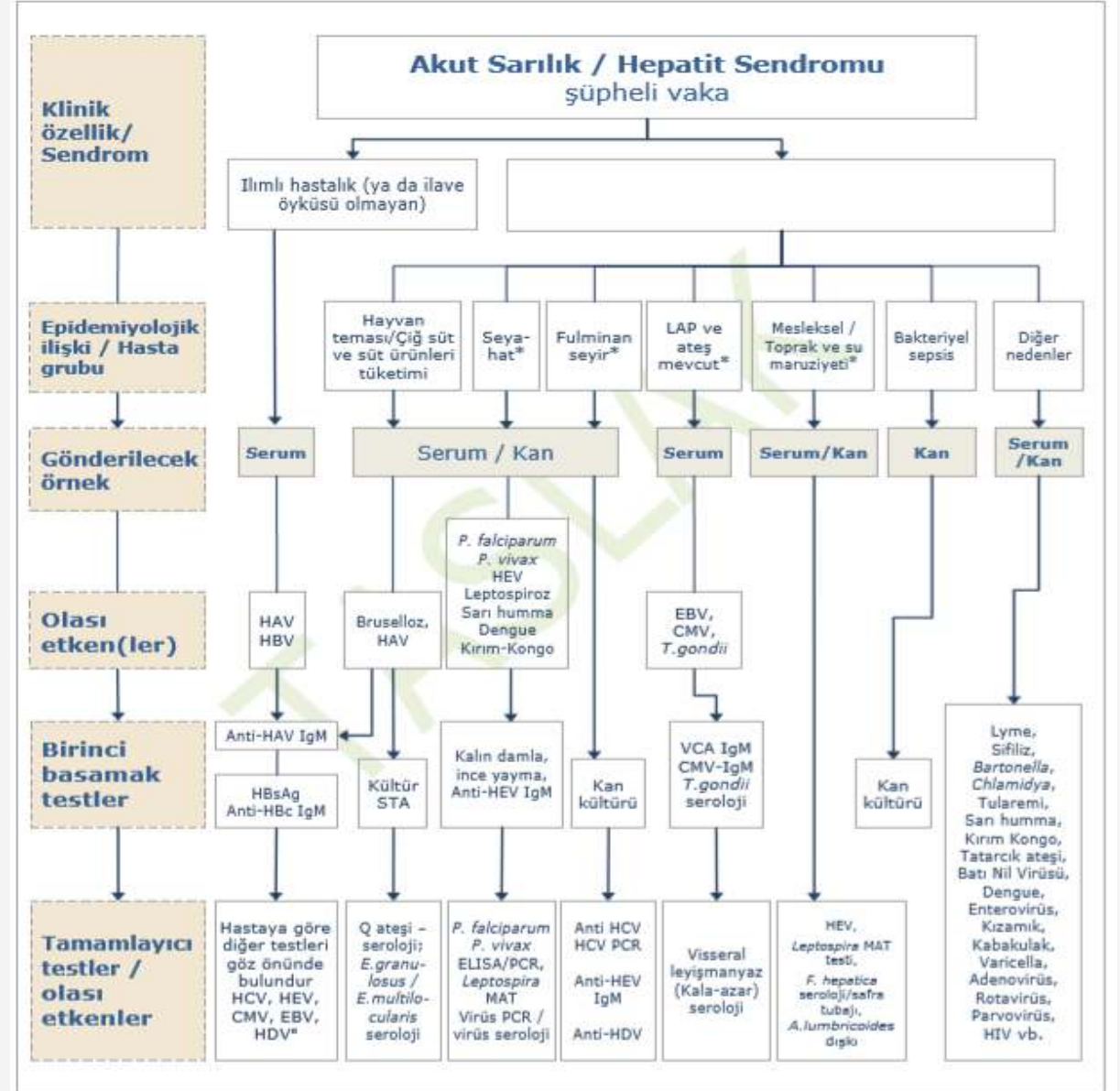
- Endemik bölgede yaşayan tarım ve hayvancılık ile uğraşan çiftçiler, çobanlar, kasaplar, mezbaha çalışanları
- Endemik bölgede kene teması ya da hayvanların kan ve dokularıyla temas
- Endemik bölgeye son iki hafta içinde seyahat
- Veteriner hekimler
- Laboratuvar çalışanları
- Enfekte hastalarla temas eden sağlık personeli
- Askerler
- Kamp yapanlar
- Hasta yakınları

^b Endemik bölgeler:

İç Anadolu Bölgesinin kuzeyi, Karadeniz Bölgesinin güneyi ve Doğu Anadolu Bölgesi
En çok görüldüğü iller: Tokat, Yozgat, Sivas, Amasya, Çorum, Çankırı, Bolu, Kastamonu, Erzurum, Erzincan, Gümüşhane, Bayburt, Bartın, Karabük. Bununla birlikte diğer illerden de sporadik bildirimler mevcuttur.

Akut sarılıklar

Ek-1 Akut sarılık sendromu tanı yaklaşımı akış şeması



STA, standart tüp aglütinasyonu (Wright); MAT, mikroskopik aglütinasyon testi; VCA, viral capsid antigen

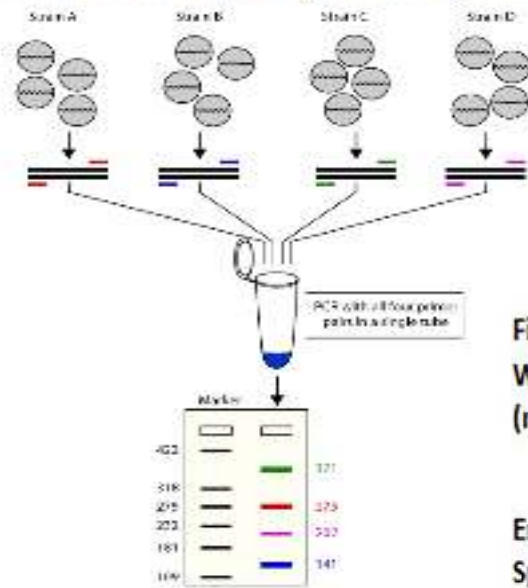
* HBsAg pozitif olgularda göz önünde bulundurulmalıdır. * bu vakalarda her zaman Anti-HAV IgM, HBsAg ve Anti-HBc IgM de bakılmalıdır.

Sendromik yaklaşımda laboratuvarın rolü

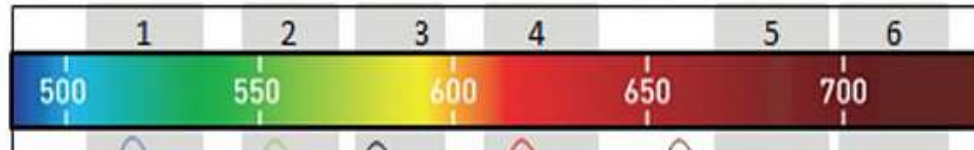
Dođru kurgulanmış bir sendromik yaklaşımın en önemli bileşeni laboratuvar tanıdır. Özellikle moleküler tanı sistemlerinde son yıllarda geliştirilen teknolojilerle bu alanda çok önemli ilerlemeler sağlanmıştır.

- Multipleks real time PCR
- Film array teknolojisi

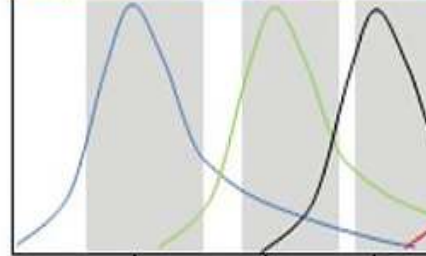
Multiplex Real Time Pcr



Filters
Wavelength
(nm)



Emission
Spectra



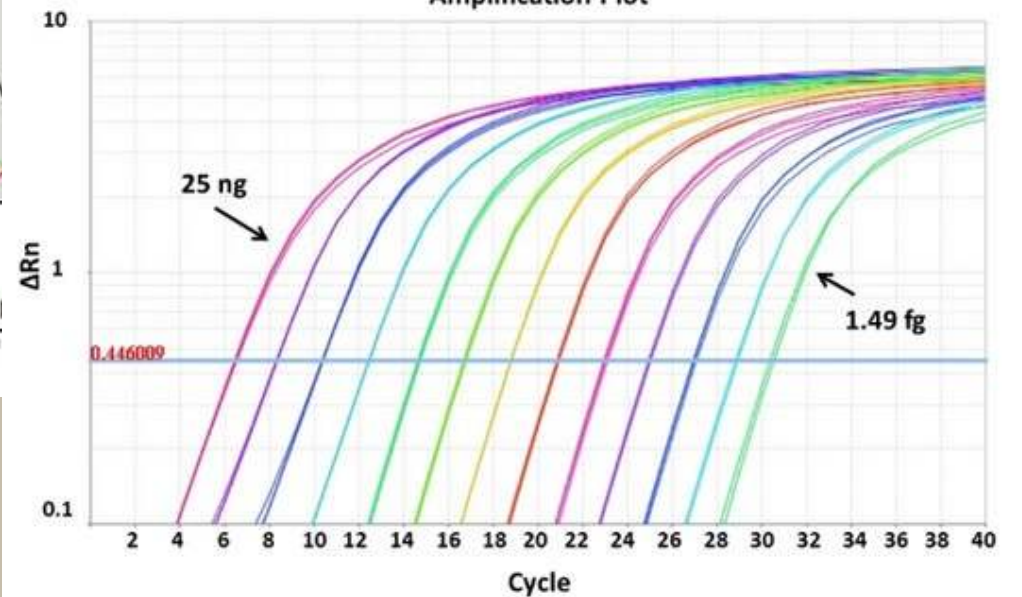
Dyes

~517 nm
FAM™

~551 nm
VIC®

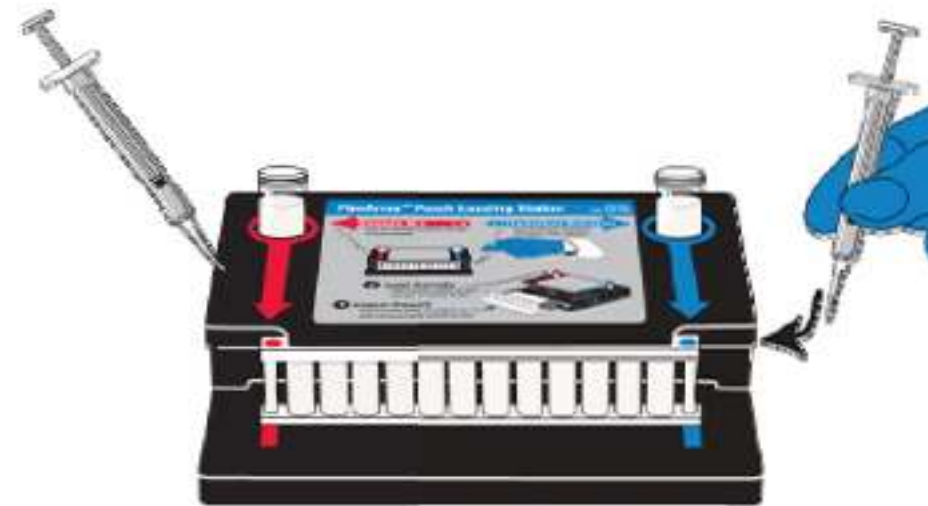
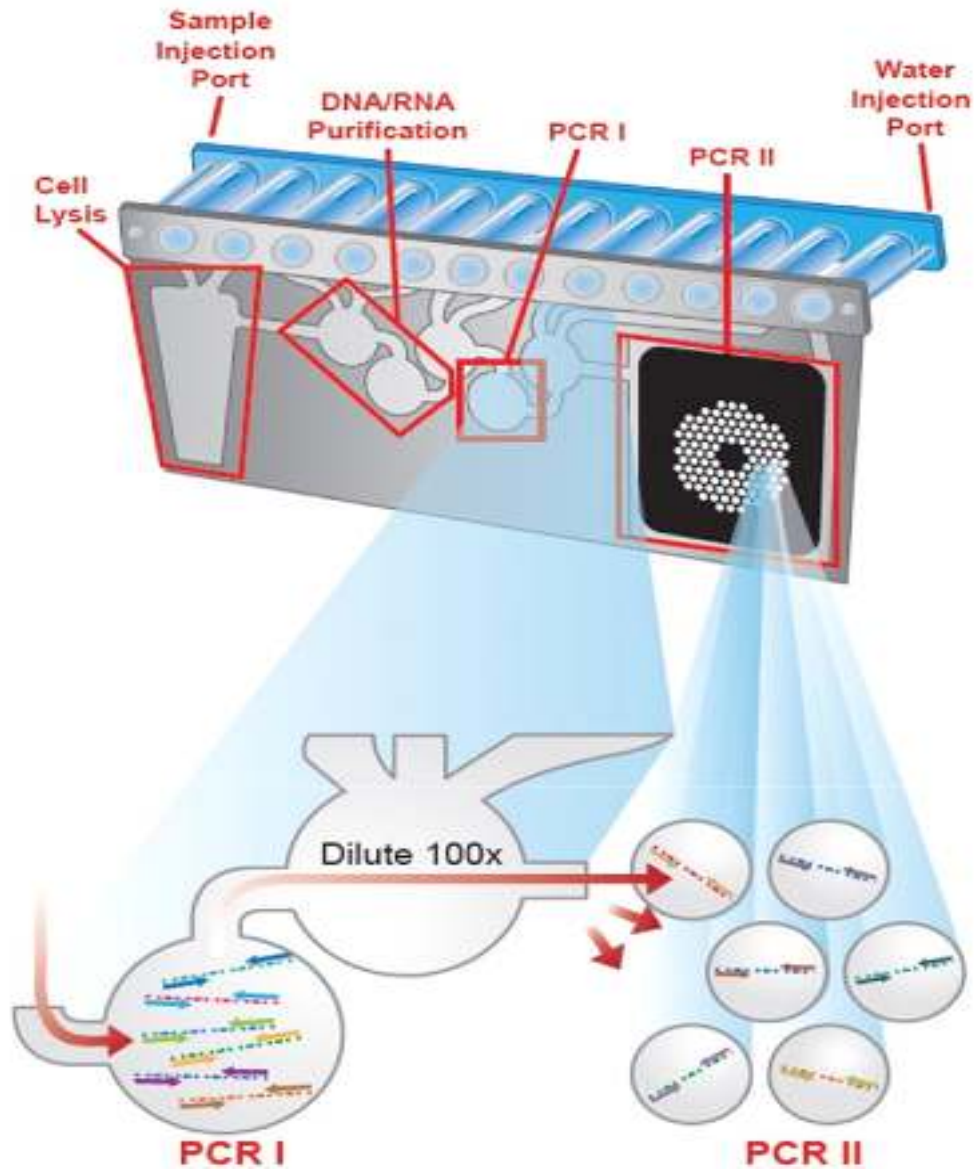
~580 nm
ABY®

Amplification Plot



Film Array

The FilmArray Pouch



AvantajLARI

- HIZLI
- DUYARLILIĞI / ÖZGÜLLÜĞÜ YÜKSEK
- KAPSAMLI
- BAKTERİYEL+VİRAL
- KISITLI ÖRNEKTE MAKSİMUM YANIT

DezavantajLARI

- PAHALI
- CİHAZ/SİSTEM BAĞIMLI
- KALİFİYE PERSONEL GEREKLİLİĞİ

SENDROMİK SURVEYANS

Sendromik Surveyans-I (salgınların izlenmesi-erken uyarı)

- **Erken uyarı sisteminde sendromik sürveyans;** salgına neden olabilecek veya halk sağlığı tehdidi olarak karşılaşılan semptomları hızla tespit etmek için ön verilerin sistematik toplanması, analizi ve laboratuvar tarafından etkenin belirlenmesi sürecini kapsar. Böylece etkene özgü önlemlerin alınarak salgınların en erken evrede sınırlandırılması mümkün olmaktadır.
 - Akut Bağırsak Enfeksiyonları surveyansı
 - Viral hemorajik ateş surveyansı....

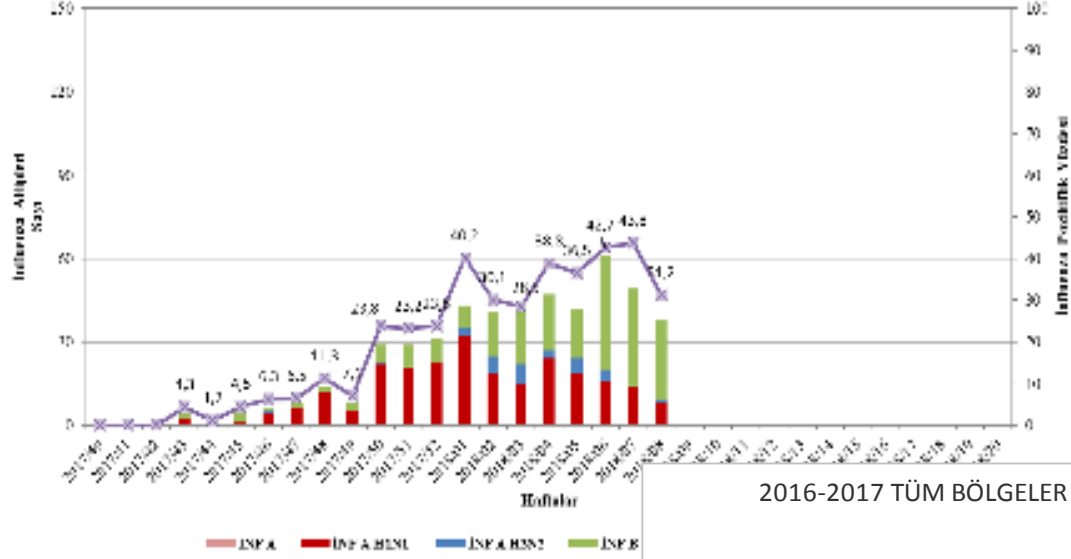
Sendromik Surveyans-II (BULAŞICI HASTALIKLARIN İZLENMESİ)

- **Sendromik sürveyans;** bir sağlık olayının, spesifik bir hastalık tanımına göre *değil*, sendrom temelinde yapılmış bir vaka tanımına göre verilerin/örneklerin sistematik toplanması/analizi ve laboratuvar tanı sürecini kapsar.
 - ILI/SARI surveyansı
 - AFP surveyansı
 - Ateş+döküntü surveyansı...

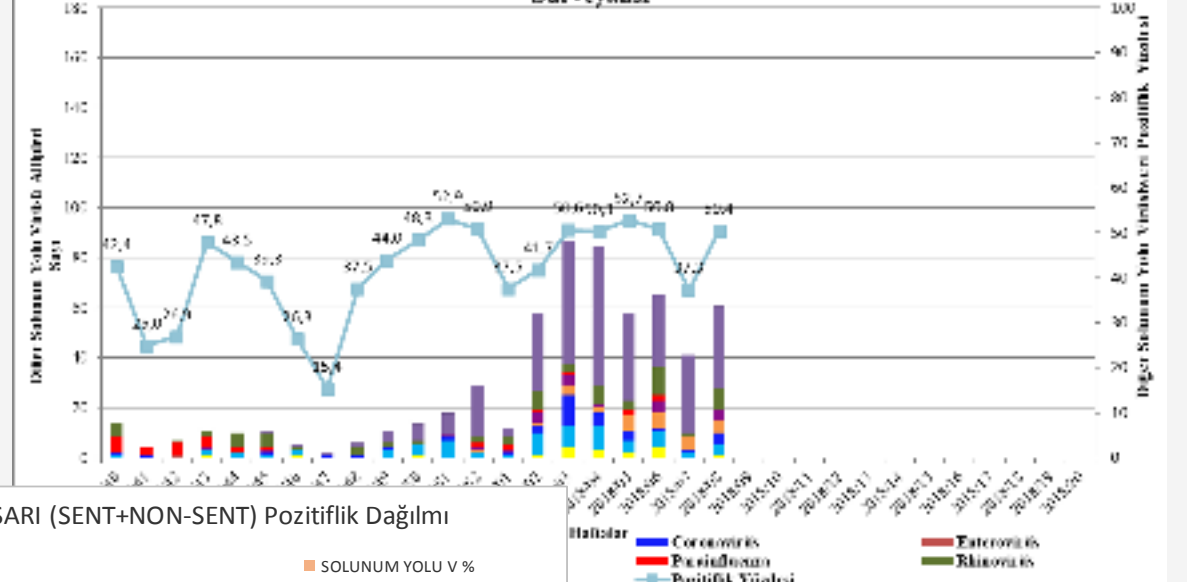
Sendromik SURVEYANSTA laboratuvarın rolü

ILI/SARI SURVEYANSI

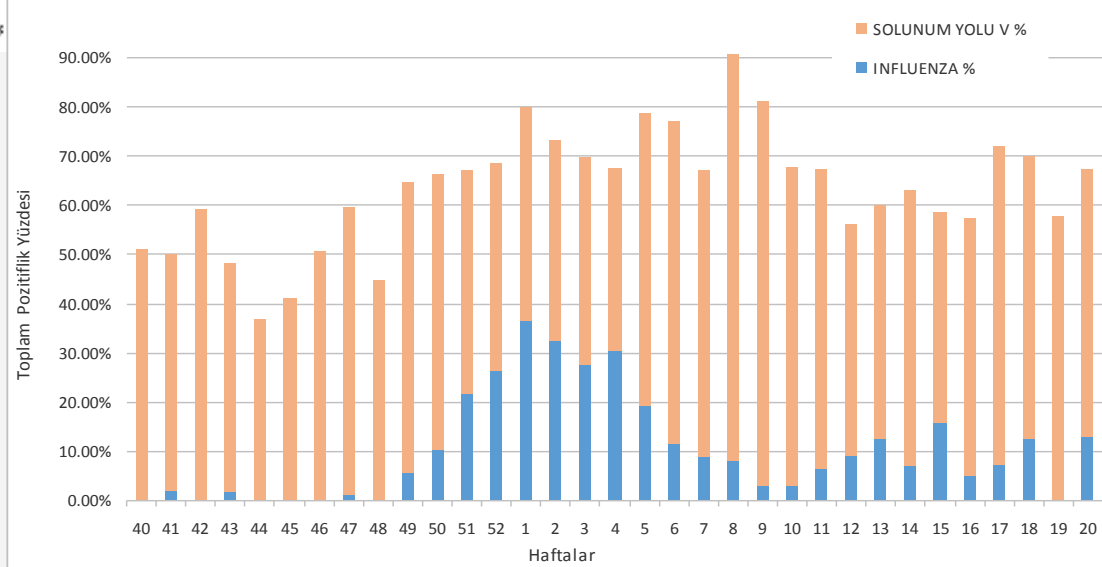
Haftalık İnfluenza Alt tipleri Sayısı ve İnfluenza Pozitiflik Yüzdesi , GBH Sürveyansı



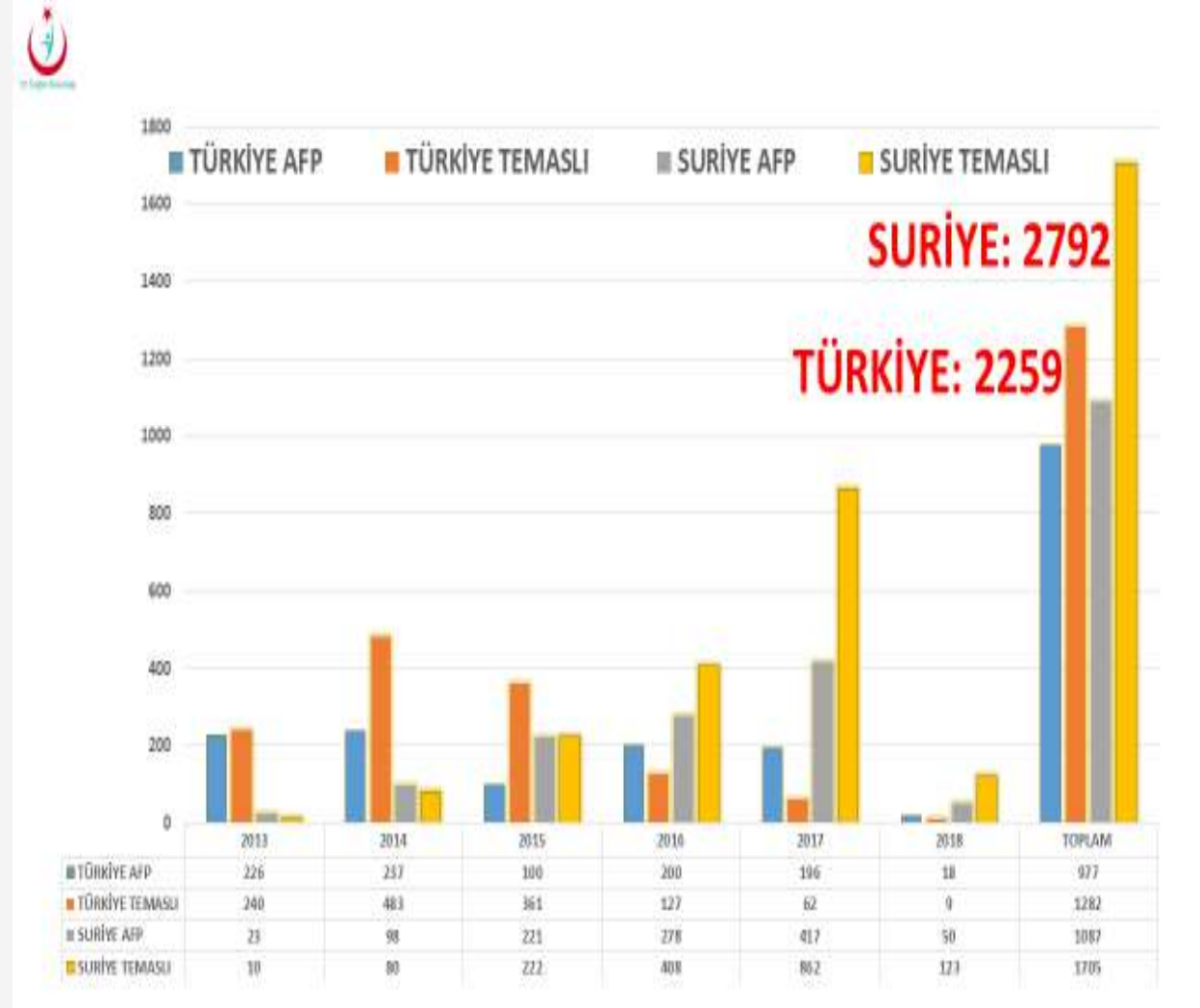
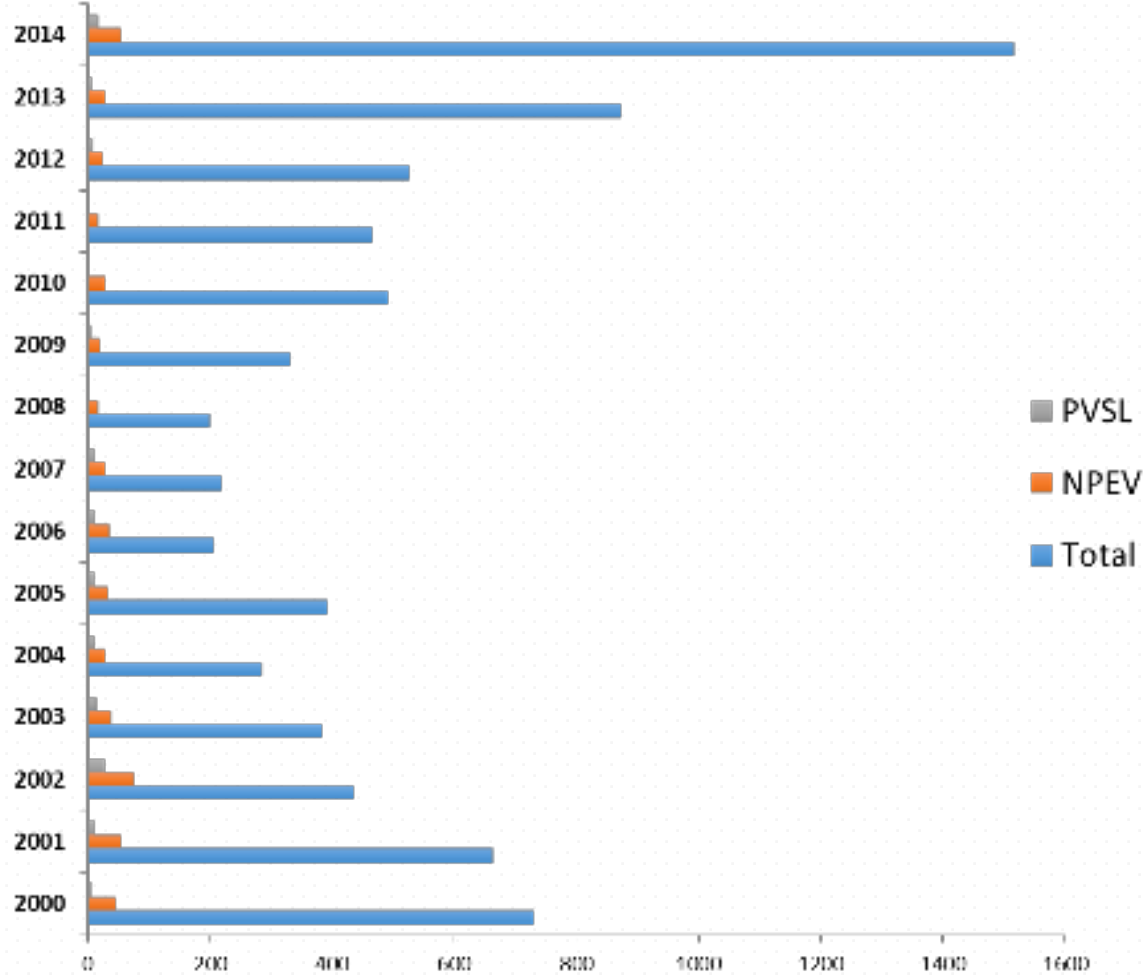
Haftalık Diğer Solunum Yolu Virüsleri Alt Tipleri ve Pozitiflik Yüzdesi SARI Sürveyansı



2016-2017 TÜM BÖLGELER TOPLAM SARI (SENT+NON-SENT) Pozitiflik Dağılımı

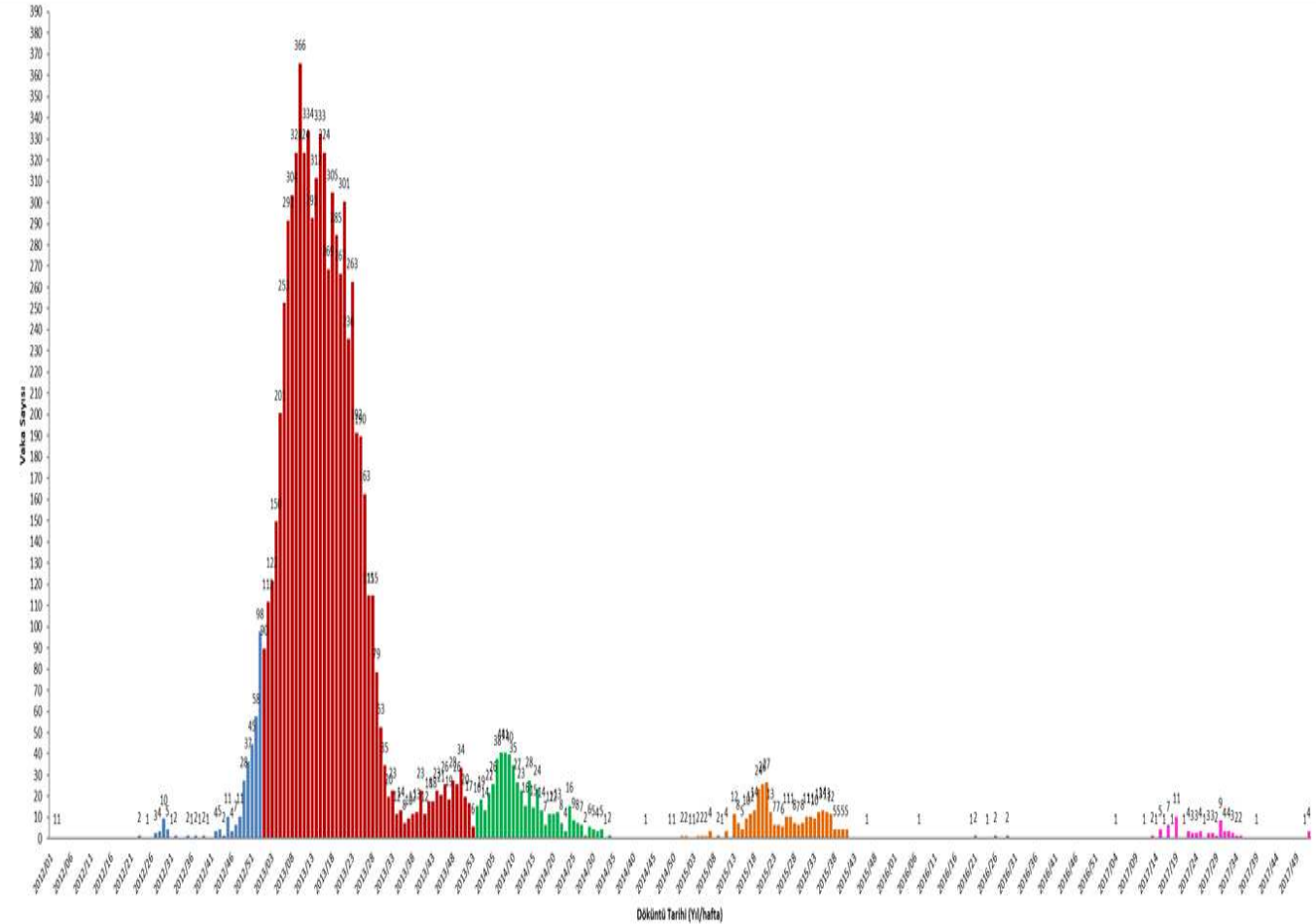


AFP SURVEYANSI

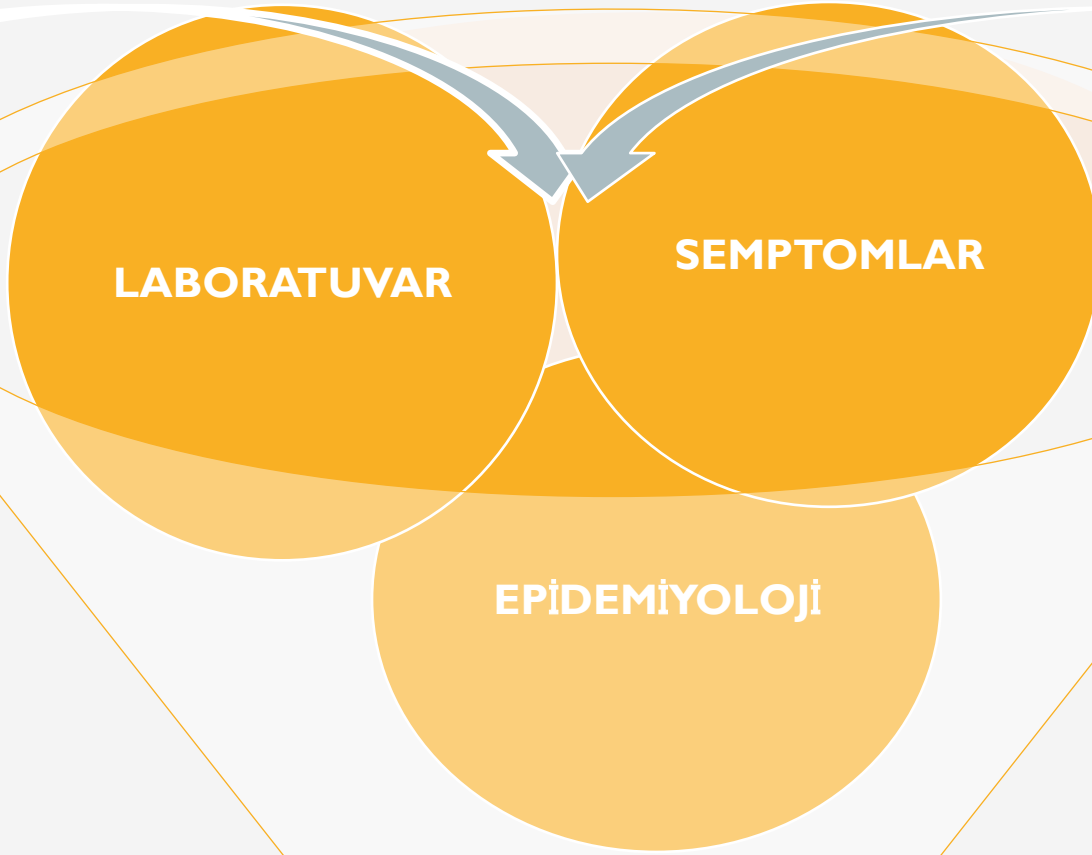


ATEŞ-DÖKÜNTÜ İLE SEYREDEN HASTALIK SURVEYANSI

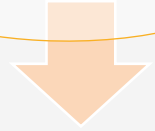
YILLAR	KIZAMIK ŞÜPHELİ ÖRNEK SAYISI	KIZAMIK (+)	RUBELLA ŞÜPHELİ ÖRN SAYISI
2006	391	0	3
2007	1155	0	11
2008	675	4	6
2009	1306	3	12
2010	4061	7	36
2011	4830	101	42
2012	5641	337	49
2013	32640	8042	47
2014	3188	430	7



**VAKA
YÖNETİMİ**



**HALK
SAĞLIĞI**



SENDROMİK YAKLAŞIM

Teşekkür ederim