# ATEŞLİ ÇOCUĞA YAKLAŞIM

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**Çocuk Enfeksiyon Hastalıkları Bilim Dalı**

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Ateş

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# Fighting 'fever phobia'

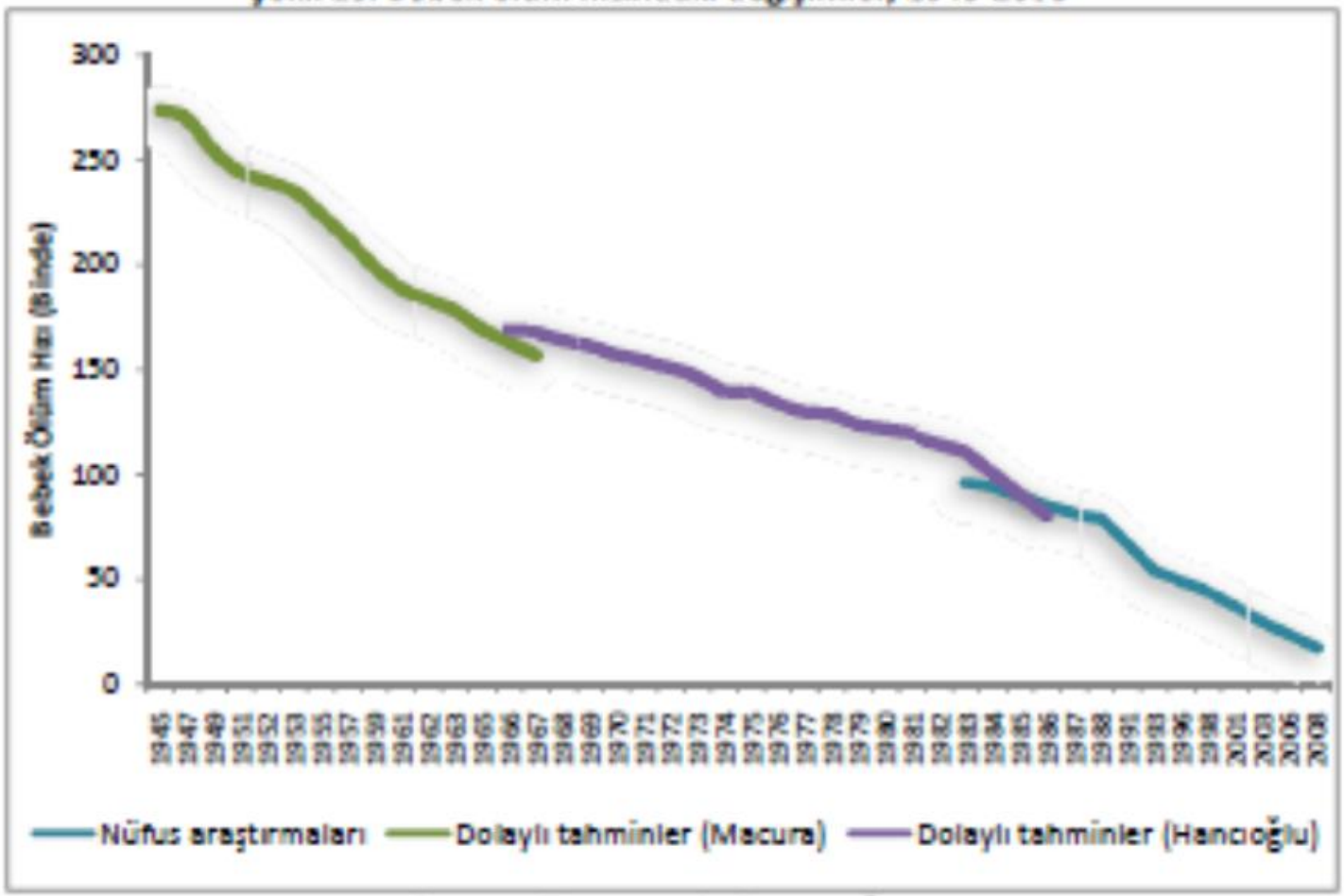
Fever, in and of itself, is not known to endanger a generally healthy child and actually may be beneficial. Still, many caregivers panic when they see the number on the thermometer rise past 98.6 degrees and rush to give their child acetaminophen or ibuprofen.

A new AAP clinical report addresses the state of knowledge about antipyretic usage in children, including common concerns, indications, treatment goals, single or combination therapy, and instructions for caregivers. It also highlights the need to educate patients and families about fever and "fever phobia."

**See story on page 8.**

# Türkiye'de bebek ve çocuk ölümleri

Şekil 28. Bebek ölüm hızındaki değişimler, 1945-2008[11]




*Kaynak: Hancıoğlu, 1991; Yüksel, 2008; HÜNEE, 2009*

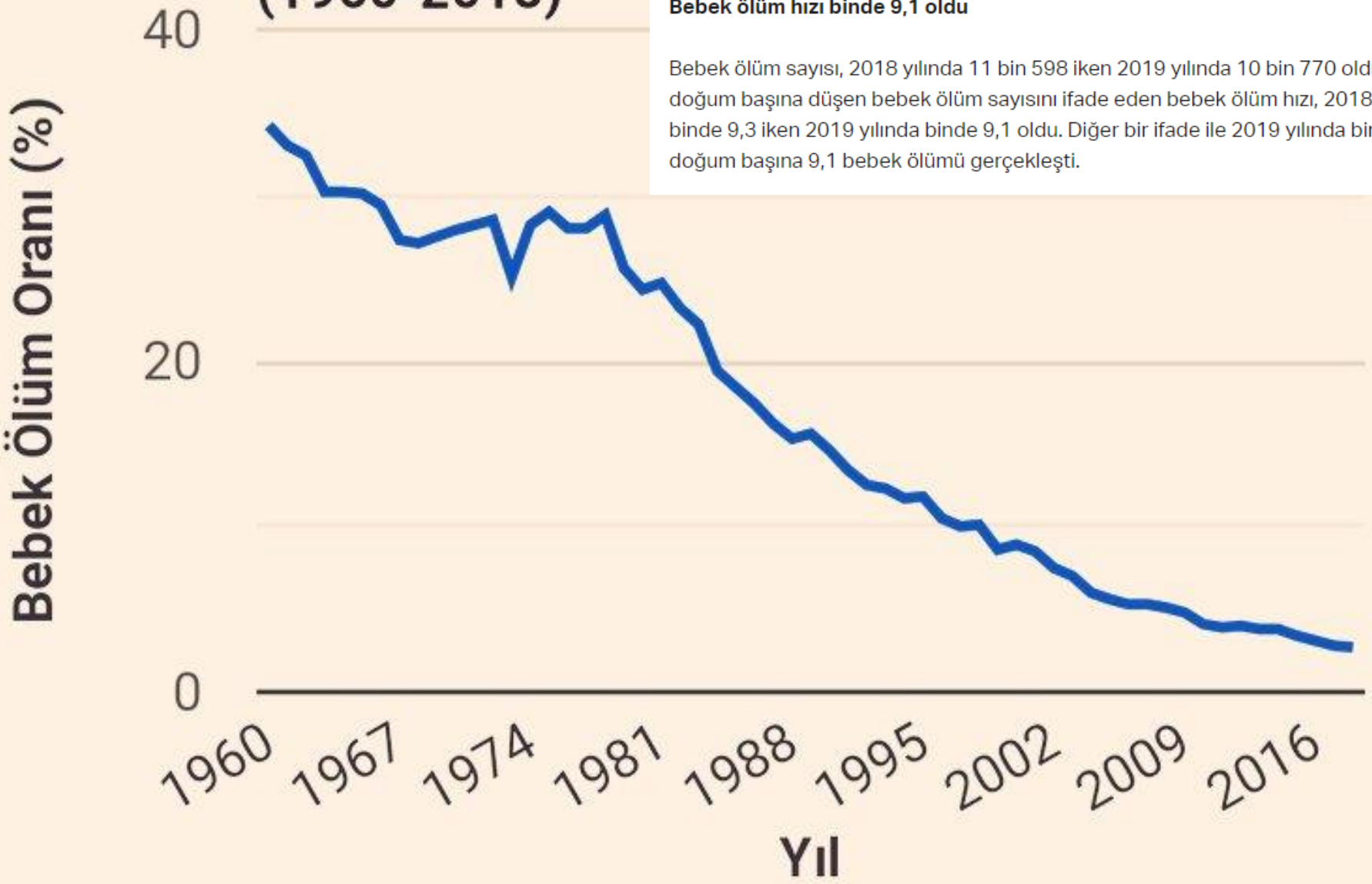
Türkiye'de ölümler açısından son yıllara kadar en temel konu bebek ve çocuk ölümleri oldu. Ekonomik kalkınma seviyesinin çok gerisinde bir seyir izleyen bebek ölümleri ancak son yıllarda bir iyileşme göstererek, bölgedeki diğer ülkelerin seviyesine yaklaşmaya başladı.

**GRAFİK: İ. Koç, M. A. Eryurt, T. Adalı, P. Seçkiner , 2010, s.45**

# Grafik 4d: Yıllara Göre Türkiyede Ölümler İçinde Bebek (0 Yaş) Ölüm Oranı (%) (1960-2018)

**Bebek ölüm hızı binde 9,1 oldu**

Bebek ölüm sayısı, 2018 yılında 11 bin 598 iken 2019 yılında 10 bin 770 oldu. Bin canlı doğum başına düşen bebek ölüm sayısını ifade eden bebek ölüm hızı, 2018 yılında binde 9,3 iken 2019 yılında binde 9,1 oldu. Diğer bir ifade ile 2019 yılında bin canlı doğum başına 9,1 bebek ölümü gerçekleşti.

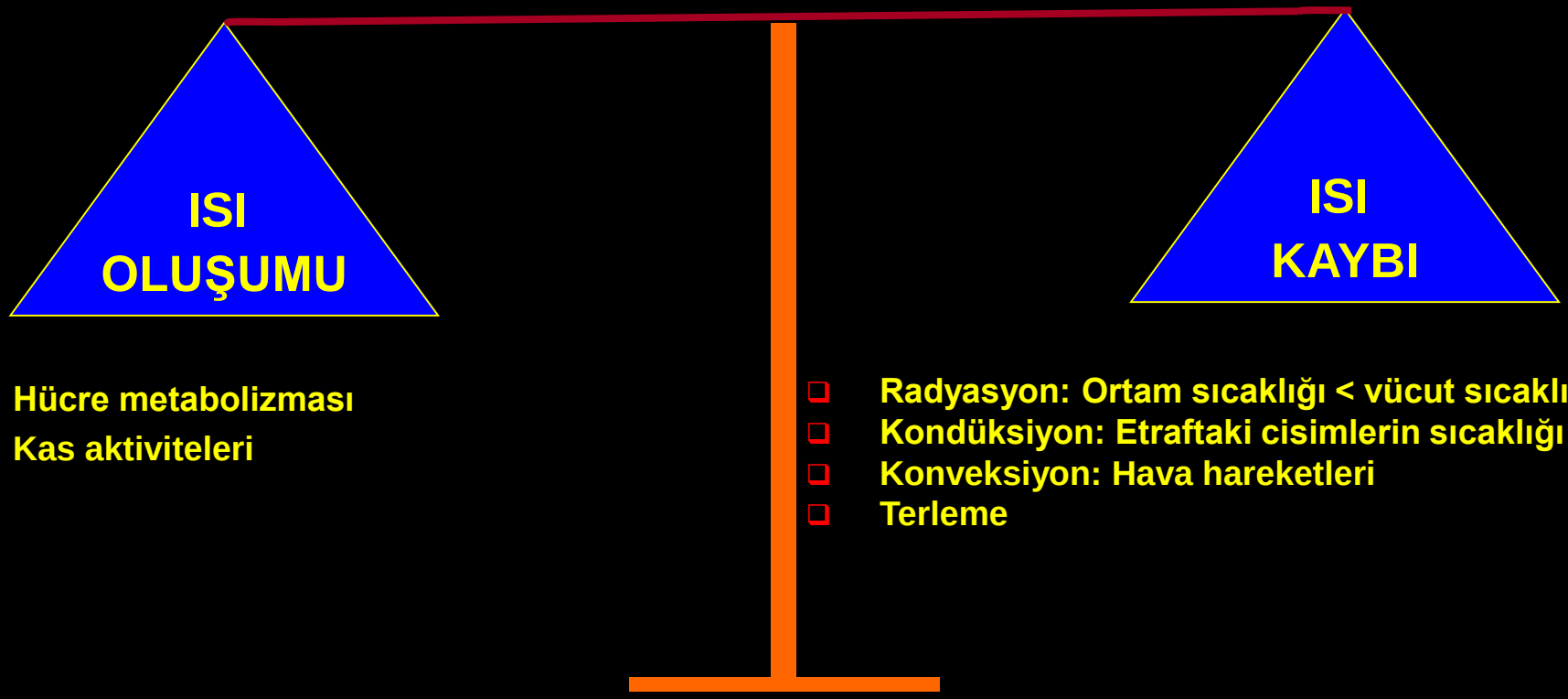


# ATEŞ NEDİR?

**Vücut sıcaklığının kontrollü bir biçimde normalin üstüne çıkmasıdır.**

# TERMOREGÜLASYON

**Vücut iç sıcaklığının dengeli bir şekilde sabit tutulmasıdır**

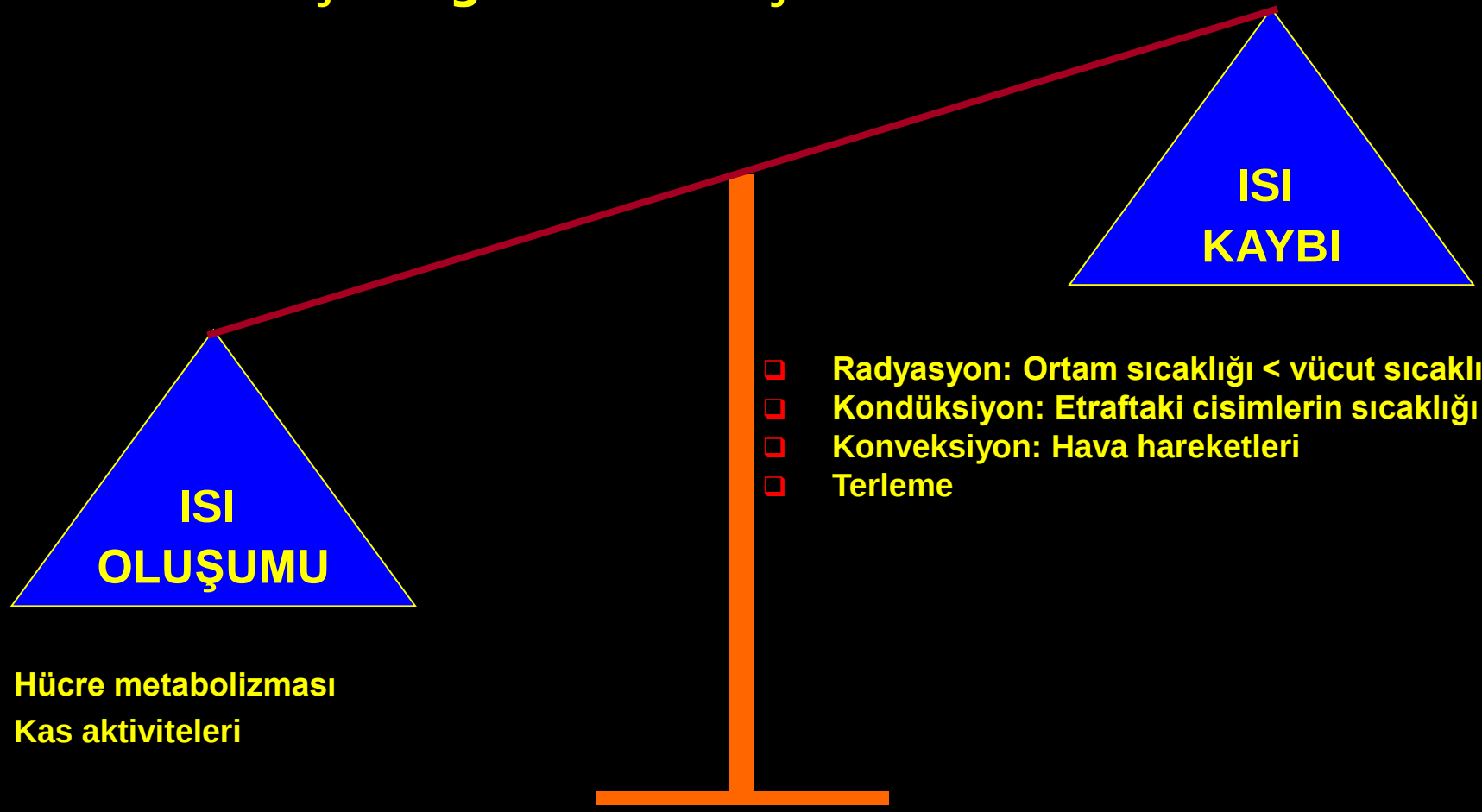



- Hücre metabolizması
- Kas aktiviteleri

- Radyasyon: Ortam sıcaklığı < vücut sıcaklığı
- Kondüksiyon: Etraftaki cisimlerin sıcaklığı < vücut sıcaklığı
- Konveksiyon: Hava hareketleri
- Terleme

# ATEŞ

**Ateş dengenin ısı oluşumu lehine bozulmasıdır.**

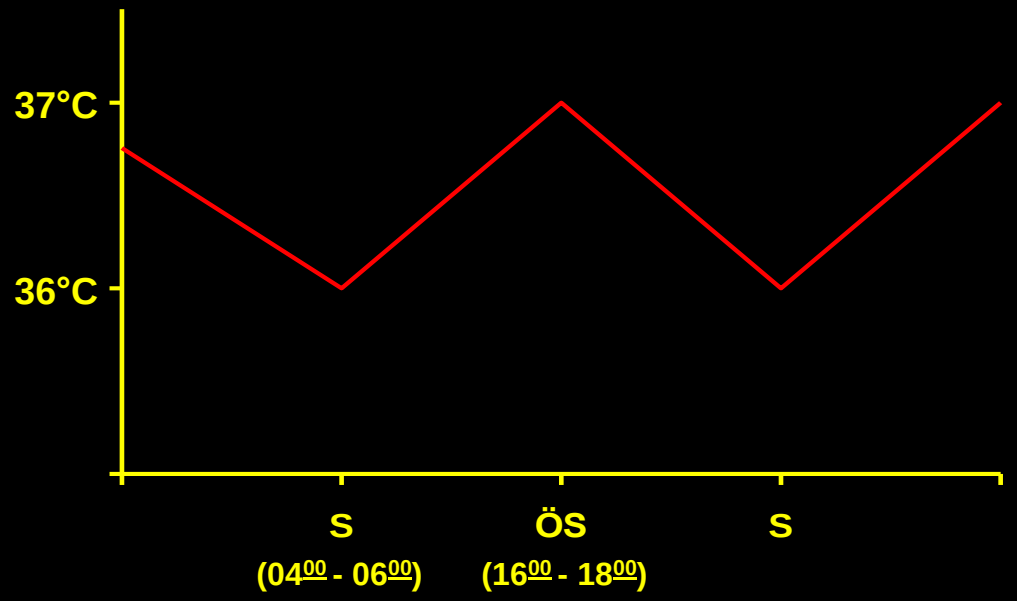



- Radyasyon: Ortam sıcaklığı < vücut sıcaklığı
- Kondüksiyon: Etraftaki cisimlerin sıcaklığı < vücut sıcaklığı
- Konveksiyon: Hava hareketleri
- Terleme

- Hücre metabolizması
- Kas aktiviteleri

# VÜCUT SICAKLIĞININ DİURNAL RİTMİ

**Sabah-akşam saatleri arasındaki fark ortalama: 0.9-1.1°C**
**İlk 2 yaşta bu fark belirgin değil**
**6 ay-2 yaş → 0.6°C fark**




Oğlum cennete geldik galiba!
Kesin cennetteyiz lan!
Sıcacık.
Ooof of-

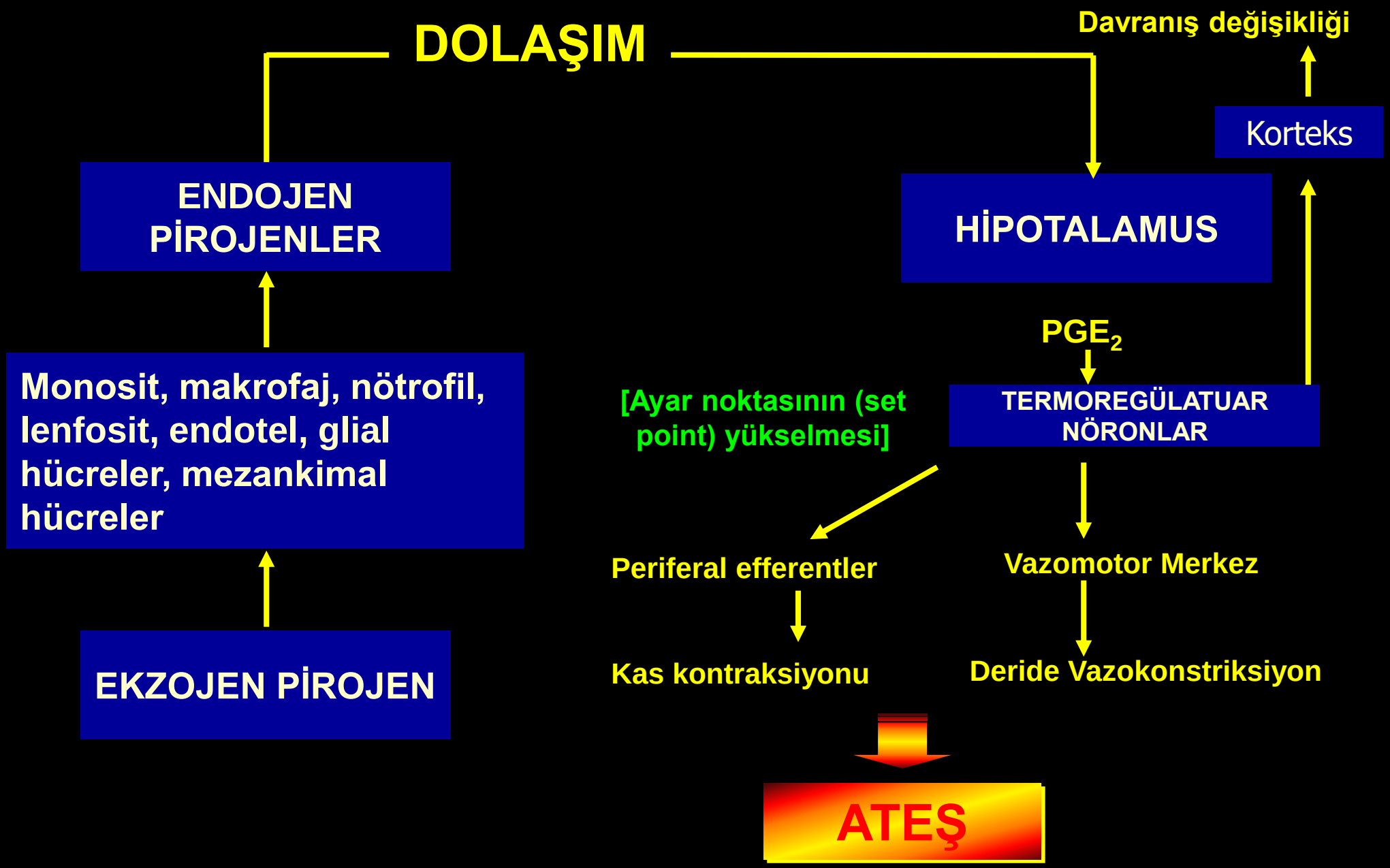

HEMŞİRELİK BÖLÜMÜNDEN DERECE İLE MEZUN OLDUM.
BALTAYLA MI MEZUN OLACAKTIN?.. HEMŞİRESİN, DERECEYLE OLACAN TABİ HAH HAH HAH!
BANA DAHA İYİ KALPLİ, TATLI Bİ KIZ LAZIM... BU KÜFREDİYOR

# TERMOMETRELER

1. Civalı termometre
2. Elektronik termometre
3. Kızıl ötesi kulak termometresi
4. Temassız termometre
5. Plastik termometre

# VÜCUT SICAKLIĞININ HANGİ DEĞERLERİN ÜSTÜNE ÇIKMASI ATEŞ OLARAK KABUL EDİLİR?

- **Aksiller** **> 37.2ºC**
- **Oral** **> 37.8ºC**
- **Rektal** **≥ 38ºC**
- **Timpanik** **> 38ºC (Rektal mod) >37.5ºC (Oral mod)**
- **Alın** **> 38ºC**


DOLAŞIM
Davranış değişikliği
Korteks
ENDOJEN PİROJENLER
HİPOTALAMUS
Monosit, makrofaj, nötrofil, lenfosit, endotel, glial hücreler, mezankimal hücreler
PGE2
[Ayar noktasının (set point) yükselmesi]
TERMOREGÜLATUAR NÖRONLAR
Periferal efferentler
Vazomotor Merkez
Kas kontraksiyonu
Deride Vazokonstriksiyon
EKZOJEN PİROJEN
ATEŞ


AZ BİŞEY YAKTIK 400 GELMİŞ, NE YAKTIK Kİ?..
NE DİYOSUN?
NE BİLİİM?!

**Ateş, vücudun zararlı etkenlere karşı geliştirdiği adaptif bir yanıttır**

**Vücut sıcaklığı arttığında;**

1. **İnflamasyon sistemi daha iyi çalışır**
2. **Mikrobiyal çoğalma hızı azalır**

**ATEŞ, ORGANİZMANIN YARARINA İŞLEV GÖRÜR**


BU DÜNYAMIZ CEHENNEMİN TA KENDİSİ DOSTUM...
Kabullenemedi bi türlü!

# ATEŞİN NEDEN OLDUĞU DEĞİŞİKLİKLER

**Metabolik hızda artma**

**Oksijen tüketimde artma**

**Karbondioksit üretiminde artma**

**Kardiyak output artışı**

**Solunum iş yükünde artma**

**Konvulsiyon eşiğinde düşme**


Ouuu... Bu hakkaten canımı yakacak.

# ATEŞİN TEDAVİSİ

**DESTEK TEDAVİSİ**

**Ortam sıcaklığının ayarlanması**

**İnce ve gevşek giysi giydirilmesi**

**Bol su verilmesi**


Suuuu...
Suuuuuu...
Fahriii!
Kim lan bu Su? Eski sevgilin mi yoksa?!
Eyvaaah, susuzluk etkisini göstermeye başladı.

# ATEŞİN TEDAVİSİ

**DESTEK TEDAVİSİ**

**Ortam sıcaklığının ayarlanması**

**İnce ve gevşek giysi giydirilmesi**

**Bol su verilmesi**

**Yeterli kalori alımının sağlanması**

**Ilık su ile pansuman ve banyo**


Söylee! Nasıl soktun bunu içeri!?

# SORU

**En az hangi vücut sıcaklığında ateş düşürücü ilaç verirsiniz?**

A. ≥ 37ºC
B. ≥ 37.2ºC
C. ≥ 38ºC
D. ≥ 38.5ºC
E. ≥ 39ºC
F. ≥ 39.5ºC
G. ≥ 40ºC

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# Fever! Fever! Fever!

## Clinical report addresses educating parents to reduce 'fever phobia'

by Hank Farrar, M.D., FAAP, and Janice E. Sullivan, M.D., FAAP

Although many parents administer antipyretics to a child with minimal or no fever, this report emphasizes that the primary goal of treating the febrile child should be improvement of the child's overall comfort rather than normalization of body temperature.

It is 3 a.m. and you get your third call of the night about a child with fever. A parent asks about giving antipyretics prior to routine immunizations. You are educating first-time parents about fever prior to discharge of their infant from the newborn nursery. These scenarios are common in everyday practice.

Fever accounts for one-third of all presenting conditions in children. What guidance is available to pediatricians and pediatric health care providers regarding fever treatment or prophylaxis and education for parents/caregivers?

A new AAP clinical report, *Fever and Antipyretic Use in Children*, summarizes recommendations and controversies related to the use of antipyretics in pediatrics (*Pediatrics.* 2011;127:580-587). The report, from the AAP Section on Clinical Pharmacology and Therapeutics and the Committee on Drugs, addresses the state of knowledge about antipyretic usage in pediatric patients, including common concerns, indications, treatment goals, single or combination therapy, and instructions for caregivers. Limited evidence-based information is available regarding antipyretic therapy, combination therapy and the role of fever in the natural history of an illness.

### Need to educate

The report highlights the need to educate patients and families about fever and "fever phobia."

Fever is a physiological mechanism that has beneficial effects in fighting infection. Fever, in and of itself, is not known to endanger

of an illness or that it causes long-term neurological complications. Possible exceptions may be children with certain underlying chronic disease (i.e., myocardial dysfunction or heart failure) or acute illness (i.e., acute myocarditis, shock, etc.) that may result in limited tolerance of the increased metabolic demands caused by a fever.

Many physicians continue to encourage the use of antipyretics, believing that most benefits result from improved comfort and the accompanying improvements in activity and feeding, less irritability, and a more reliable sense of the child's overall clinical condition.

# Çocuklarda ateş tedavisinde birinci basamak ilaç parasetamoldür.

**T.C. Sağlık Bakanlığı**
**Kanıta Dayalı Tıp Rehberi**

**İlaç tedavisi**

Antipiretik ilaçlar sadece gerektiği durumda kullanılmalıdır.

**Birinci basamak ilaç parasetamoldür.**

Tek doz 15 mg/kg, maksimum doz 60 mg/kg/24 saat. İlaç uygulandıktan sonra bir iki saat içinde sıcaklık 1,5 ºC azalır. Etki süresi 5–6 saattir.

Çocuklarda kullanım için uygun diğer antipiretikler: Ibuprofen (>6 kg) ve naproksen (>12 ay). Bunların antipiretik etkisi en az parasetamol kadar iyidir ve etki süresi daha uzundur.

Aspirin (asetilsalisilik asit) çocuklarda antipiretik ilaç olarak kullanılmamalıdır; çünkü kullanımı Reye sendromu riskini artırır.

# ATEŞİN TEDAVİSİ

**ANTİPİRETİK İLAÇ TEDAVİSİ**

**Parasetamol** **10-15 mg/kg/doz, 4-6 saatte bir**

# ATEŞİN TEDAVİSİ

## ANTİPİRETİK İLAÇ TEDAVİSİ

| | |
|---|---|
| **Parasetamol** | **10-15 mg/kg/doz, 4-6 saatte bir** |
| **İbuprofen** | **5-10 mg/kg/doz, 6-8 saatte bir** |

| | Parasetamol[1,2] | Ibuprofen[3-6] |
|---|---|---|
| Endikasyon | Çocuklarda hafif ve orta şiddetli ağrılar ile ateşin semptomatik tedavisi | 6 ay ve üzerindeki çocuklarda ateşin düşürülmesi ve hafif ve orta derecedeki ağrıların giderilmesi amacıyla kısa süreli olarak |
| Yaş | 3 ay ve üzeri çocuklarda[1*] | 6 ay ve üzeri çocuklarda (> 7 kg) |
| GİS yan etkiler | **Yaygın:** Bulantı, diyare, dispepsi, flatulans, karın ağrısı, konstipasyon, kusma | **Yaygın:** Dispepsi, diyare, bulantı, kusma, abdominal ağrı, flatulans, konstipasyon, melana, hematemez, **gastrointestinal hemoraji**[2*] |
| Astımlı çocuklarda | **Çok seyrek:** Bronkospazm[3*] | Geçmişinde veya halen bronşiyal astım öyküsü bulunan hastalarda bronkospazm gelişmesini tetikleyebilir.[3*] |
| Kanama zamanı | Parasetamol ile varfarin veya kumarin (antikoagülant) türevleri arasındaki etkileşimler, INR* değerinde bir artışa ve kanama riskinde bir artışa neden olabilir.[4*] | Diğer NSAİİ'ler gibi, trombosit agregasyonunun inhibe edebilir ve kanama zamanını uzatabilir. |

# ATEŞİN TEDAVİSİ

## ANTİPİRETİK İLAÇ TEDAVİSİ

**Parasetamol** 10-15 mg/kg/doz, 4-6 saatte bir

**İbuprofen** 5-10 mg/kg/doz, 6-8 saatte bir

**Ketoprofen**

**Aspirin**

**Metamizol**

**Nimesulid**

| Specific recommendations | AAP[2] | SIP[27] | South- Africa[30] | NICE[44] | NSW[47] | SA[48] | WHO[49] |
|---|---|---|---|---|---|---|---|
| Age of target population | Not specified | 0–18 years | Not specified | <5 years | 1 month –5 years | <3 years | <5 years |
| Indications and treatment goals | | | | | | | |
| Antipyretics are indicated to improve overall comfort of the febrile child | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Antipyretics should not be used with the aim of reducing body temperature | ✔ | ✔ | ✔ | ✔ | ✔ | nr | ✔ |
| Fever response to antipyretics is not a predictor of serious illness | nr | ✔ | ✔ | ✔ | ✔ | nr | nr |
| Antipyretics do not prevent febrile convulsions | ✔ | ✔ | ✔ | ✔ | nr | ✔ | nr |
| Antipyretics are not indicated to prevent vaccine reaction | ✔ | ✔ | ✔ | nr | nr | nr | nr |
| Antipyretics are not indicated to treat vaccine reaction | nr | nr | ✔ | nr | nr | nr | nr |
| Physical management | | | | | | | |
| The use of physical devices is not recommended | nr | ✔ | nr | nr | ✘* | nr | ✘† |
| Children with fever should not be under-dressed or over-wrapped | nr | ✔ | ✔ | ✔ | ✘* | nr | ✘† |
| The use of alcoholic baths is not an appropriate cooling method | ✔ | ✔ | nr | nr | ✔ | nr | nr |
| Tepid sponging is not recommended for the treatment of fever | ✔ | ✔ | ✔ | ✔ | ✔ | nr | nr |
| Pharmacological management | | | | | | | |
| Consider using either paracetamol or ibuprofen in children with fever who appear distressed | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Paracetamol from the age of | 3 months‡ | Birth§ | 3 months | nr | Birth | Birth§ | 2 months |
| Ibuprofen from the age of | 6 months | nr | 3 months | nr | 6 months | | 2 months |
| Combination of paracetamol/ibuprofen is not recommended | ✘¶ | ✔ | ✔ | ✔ | nr | ✔ | nr |
| Alternating paracetamol/ibuprofen is not recommended | ✘¶ | ✔ | ✔ | ✘** | ✔ | ✘** | nr |
| Oral administration of paracetamol is preferred to rectal | nr | ✔ | nr | nr | nr | nr | nr |
| Rectal administration is allowed only if the oral is not feasible | nr | ✔ | nr | nr | nr | nr | nr |

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NICE
National Institute for Health and Care Excellence

World Health Organization

Società Italiana di Pediatria

# ATEŞİN TEDAVİSİ

**NEDENE YÖNELİK TEDAVİ**

**Enfeksiyonun tedavisi**

**Hastalığa özgü tedavi**

# ODAĞI BİLİNMEYEN AKUT ATEŞ

| GROUP | MANAGEMENT |
|---|---|
| Any toxic-appearing child 0-36 mo and temperature ≥38°C (100.4°F) | Hospitalize, broad cultures plus other tests,* parenteral antibiotics |
| Child <1 mo and temperature ≥38°C (100.4°F) | Hospitalize, broad cultures plus other tests,* parenteral antibiotics |
| Child 1-3 mo and temperature ≥38°C (100.4°F) | Two-step process<br>1. Determine risk based on history, physical examination, and laboratory studies.<br>Low risk:<br>• Uncomplicated medical history<br>• Normal physical examination<br>• Normal laboratory studies<br>• Urine: negative leukocyte esterase, nitrite and <10 WBC/HPF<br>• Peripheral blood: 5,000-15,000 WBC/$mm^3$; <1,500 bands or band: total neutrophil ratio <0.2<br>• Stool studies if diarrhea (no RBC and <5 WBC/HPF)<br>• CSF cell count (<8 WBC/μL) and negative Gram stain<br>• Chest radiograph without infiltrate<br>2. If child fulfills all low-risk criteria, administer no antibiotics, ensure follow-up in 24 hr and access to emergency care if child deteriorates. Daily follow-up should occur until blood, urine, and CSF cultures are final. If any cultures are positive, child returns for further evaluation and treatment. If child does not fulfill all low-risk criteria, hospitalize and administer parenteral antibiotics until all cultures are final and definitive diagnosis determined and treated |
| Child 3-36 mo and temperature 38-39°C (100.4-102.2°F) | Reassurance that diagnosis is likely self-limiting viral infection, but advise return with persistence of fever, temperatures >39°C (102.2°F), and new signs and symptoms |
| Child 3-36 mo and temperature >39°C (102.2°F) | Two-step process:<br>1. Determine immunization status<br>2. If received conjugate pneumococcal and *Haemophilus influenzae* type b vaccines, obtain urine studies (urine WBC, leukocyte esterase, nitrite, and culture) for all girls, all boys <6 mo old, all uncircumcised boys <2 yr, all children with recurrent urinary tract infections<br>If did not receive conjugate pneumococcal and *H. influenzae* type b vaccines, manage according to the 1993 Guidelines (see Baraff et al. *Ann Emerg Med* 22:1198-1210, 1993.) |

*Other tests may include chest radiograph, stool studies, herpes simplex polymerase chain reaction.
CSF, cerebrospinal fluid; HPF, high-powered field; RBC, red blood cell; WBC, white blood cell.

CLINICAL PRACTICE GUIDELINE

American Academy of Pediatrics

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# Evaluation and Management of Well-Appearing Febrile Infants 8 to 60 Days Old

Robert H. Pantell, MD, FAAP,[a] Kenneth B. Roberts, MD, FAAP,[b] William G. Adams, MD, FAAP,[c] Benard P. Dreyer, MD, FAAP,[d] Nathan Kuppermann, MD, MPH, FAAP, FACEP,[e] Sean T. O'Leary, MD, MPH, FAAP,[f] Kymika Okechukwu, MPA,[g] Charles R. Woods Jr, MD, MS, FAAP[h] SUBCOMMITTEE ON FEBRILE INFANTS

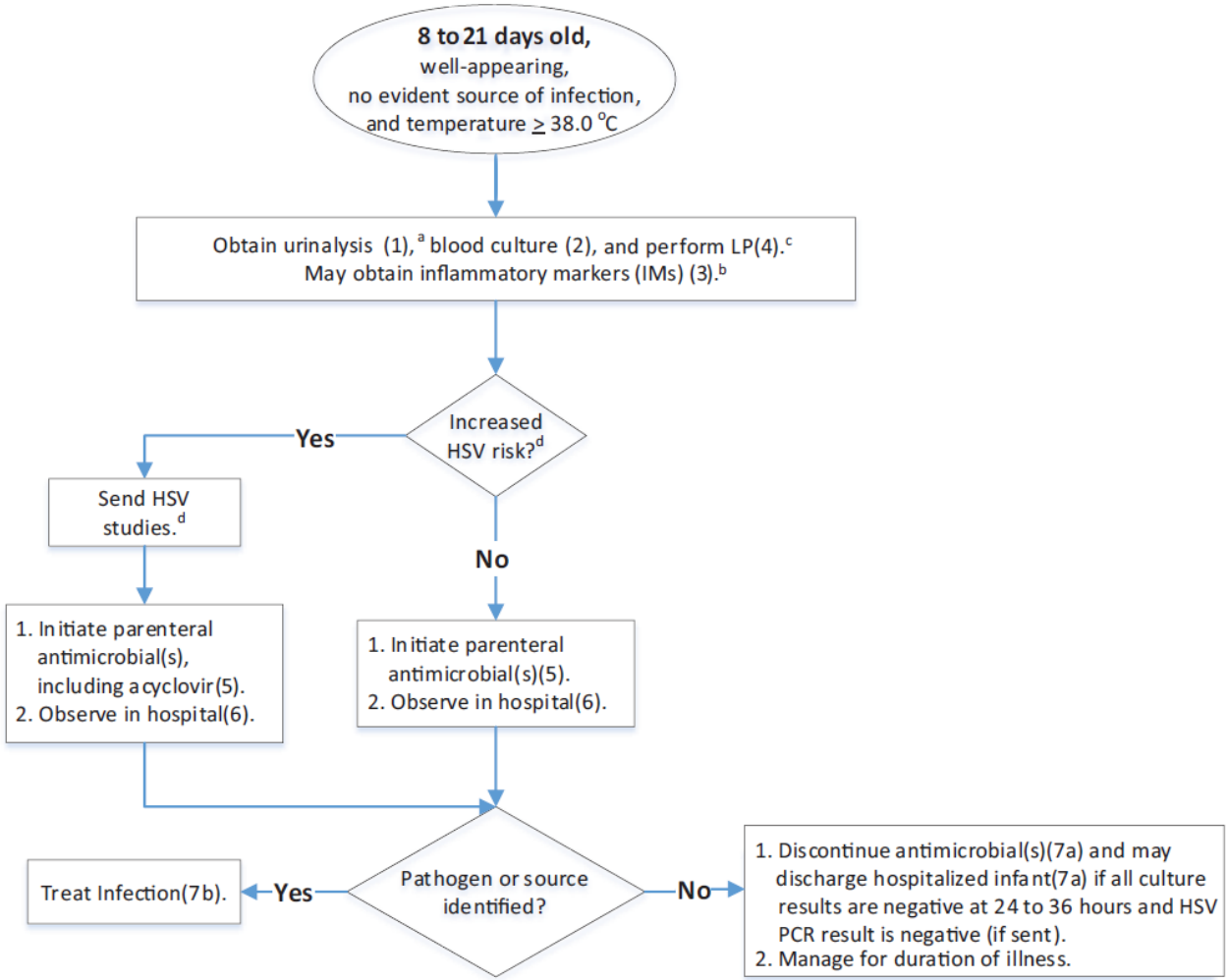
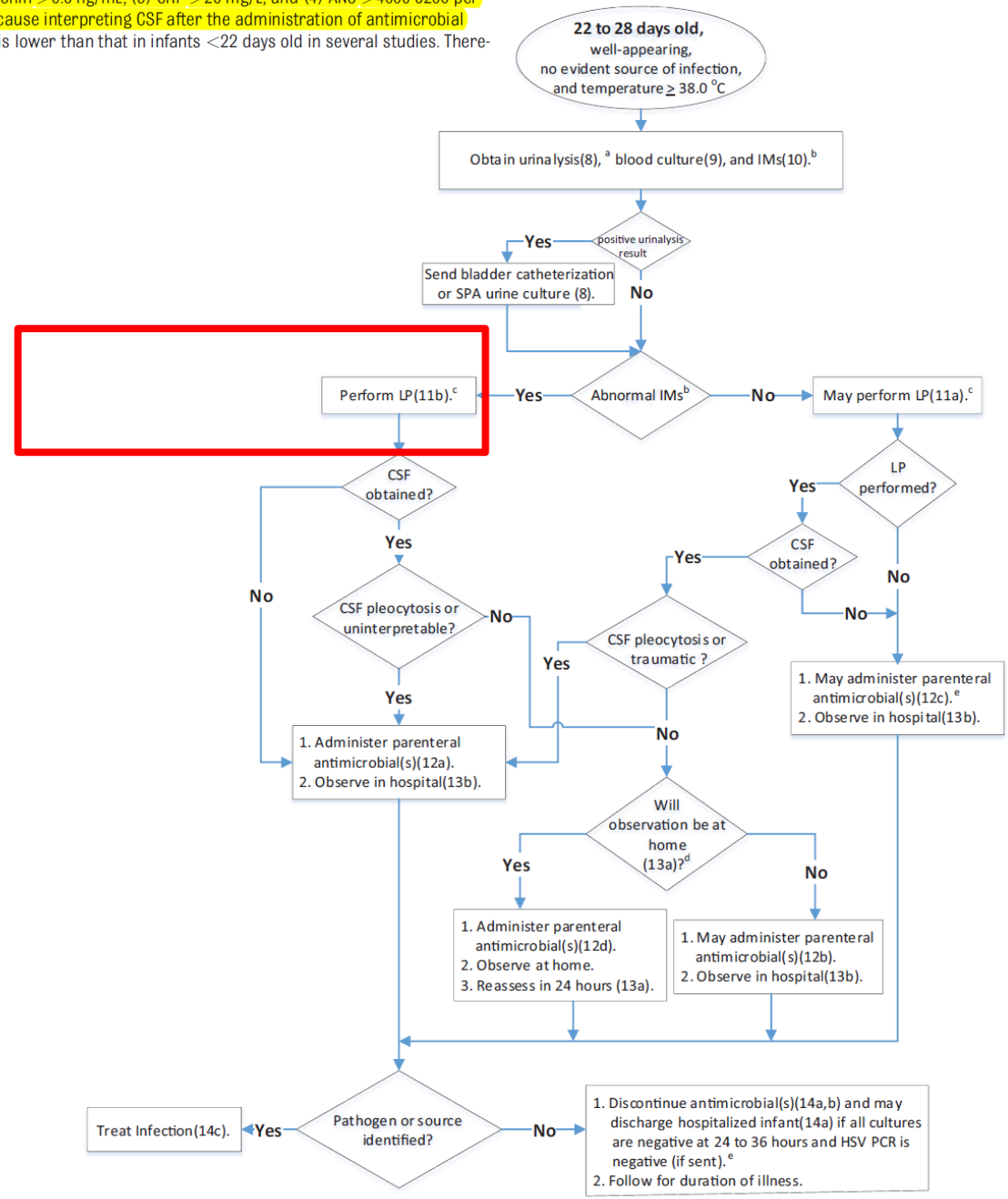



**FIGURE 1** Algorithm for 8- to 21-day-old infants. [a] KAS references are shown in parentheses. [b] Laboratory values of inflammation are considered elevated at the following levels: (1) procalcitonin >0.5 ng/mL, (2) CRP >20 mg/L, and (3) ANC >4000 to 5200 per $mm^3$. Although we recommend all infants in this age group have a complete sepsis workup, receive parenteral antimicrobial agents, and be monitored in a hospital, knowing IM results can potentially guide ongoing clinical decisions. [c] Send CSF for cell count, Gram stain, glucose, protein, bacterial culture, and enterovirus PCR (if available) if pleocytosis is present and during periods of increased local enterovirus prevalence. [d] HSV should be considered when there is a maternal history of genital HSV lesions or fevers from 48 hours before to 48 hours after delivery and in infants with vesicles, seizures, hypothermia, mucous membrane ulcers, CSF pleocytosis in the absence of a positive Gram stain result, leukopenia, thrombocytopenia, or elevated alanine aminotransferase levels. For further discussion, see the current *Red Book*. Recommended HSV studies are CSF PCR; HSV surface swabs of the mouth, nasopharynx, conjunctivae, and anus for an HSV culture (if available) or PCR assay; alanine aminotransferase; and blood PCR.

**FIGURE 2** Algorithm for 22- to 28-day-old infants. [a] KAS references are shown in parentheses. [b] If available, procalcitonin should be obtained along with ANC or CRP. If procalcitonin is unavailable, both ANC and CRP should be obtained, and a temperature >38.5°C is considered abnormal. IMs are considered abnormal at the following levels: (1) temperature >38.5°C, (2) procalcitonin >0.5 ng/mL, (3) CRP >20 mg/L, and (4) ANC >4000 5200 per $mm^3$. [c] LP is recommended before administration of antimicrobial agents because interpreting CSF after the administration of antimicrobial agents is difficult. However, the risk of meningitis in 22- to 28-day-old infants is lower than that in infants <22 days old in several studies. There-



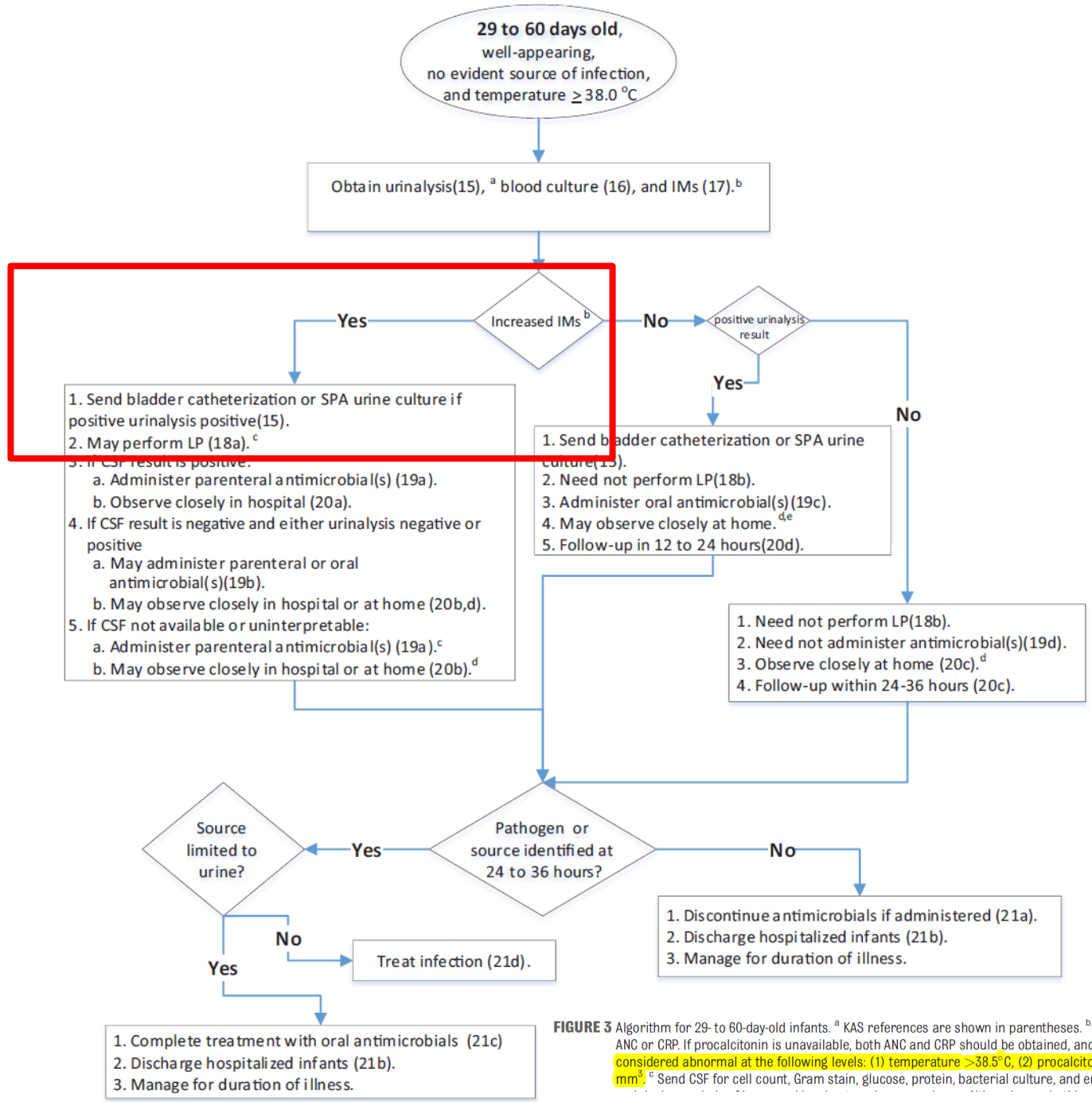



**FIGURE 3** Algorithm for 29- to 60-day-old infants. [a] KAS references are shown in parentheses. [b] If available, procalcitonin should be obtained along with ANC or CRP. If procalcitonin is unavailable, both ANC and CRP should be obtained, and a temperature >38.5°C is considered abnormal. IMs are considered abnormal at the following levels: (1) temperature >38.5°C, (2) procalcitonin >0.5 ng/mL, (3) CRP >20 mg/L, (4) ANC >4000 to 5200/mm$^3$. [c] Send CSF for cell count, Gram stain, glucose, protein, bacterial culture, and enterovirus PCR (if available) if CSF pleocytosis is present

| GROUP | MANAGEMENT |
|---|---|
| Any toxic-appearing child 0-36 mo and temperature ≥38°C (100.4°F) | Hospitalize, broad cultures plus other tests,* parenteral antibiotics |
| Child <1 mo and temperature ≥38°C (100.4°F) | Hospitalize, broad cultures plus other tests,* parenteral antibiotics |
| Child 1-3 mo and temperature ≥38°C (100.4°F) | Two-step process<br>1. Determine risk based on history, physical examination, and laboratory studies.<br>Low risk:<br>• Uncomplicated medical history<br>• Normal physical examination<br>• Normal laboratory studies<br>• Urine: negative leukocyte esterase, nitrite and <10 WBC/HPF<br>• Peripheral blood: 5,000-15,000 WBC/$mm^3$; <1,500 bands or band: total neutrophil ratio <0.2<br>• Stool studies if diarrhea (no RBC and <5 WBC/HPF)<br>• CSF cell count (<8 WBC/μL) and negative Gram stain<br>• Chest radiograph without infiltrate<br>2. If child fulfills all low-risk criteria, administer no antibiotics, ensure follow-up in 24 hr and access to emergency care if child deteriorates. Daily follow-up should occur until blood, urine, and CSF cultures are final. If any cultures are positive, child returns for further evaluation and treatment. If child does not fulfill all low-risk criteria, hospitalize and administer parenteral antibiotics until all cultures are final and definitive diagnosis determined and treated |
| Child 3-36 mo and temperature 38-39°C (100.4-102.2°F) | Reassurance that diagnosis is likely self-limiting viral infection, but advise return with persistence of fever, temperatures >39°C (102.2°F), and new signs and symptoms |
| Child 3-36 mo and temperature >39°C (102.2°F) | Two-step process:<br>1. Determine immunization status<br>2. If received conjugate pneumococcal and *Haemophilus influenzae* type b vaccines, obtain urine studies (urine WBC, leukocyte esterase, nitrite, and culture) for all girls, all boys <6 mo old, all uncircumcised boys <2 yr, all children with recurrent urinary tract infections<br>If did not receive conjugate pneumococcal and *H. influenzae* type b vaccines, manage according to the 1993 Guidelines (see Baraff et al. *Ann Emerg Med* 22:1198-1210, 1993.) |

*Other tests may include chest radiograph, stool studies, herpes simplex polymerase chain reaction.
CSF, cerebrospinal fluid; HPF, high-powered field; RBC, red blood cell; WBC, white blood cell.

# NEDENİ BİLİNMEYEN UZAMIŞ ATEŞ

**İlk kez 1961 yılında Petersdorf ve Beeson**

**1. En az üç hafta süren**
**2. Bir hafta süreyle hastanede yapılan incelemelere karşın nedeni belirlenemeyen**
**3. Belgelenmiş 38.3 ºC üzerinde ateş**

# NEDENİ BİLİNMEYEN UZAMIŞ ATEŞ

**TABLE 56-1 Summary of Definitions and Major Features of the Four Subtypes of Fever of Unknown Origin (FUO)**

| | CLASSIC FUO | NOSOCOMIAL (HEALTH CARE–ASSOCIATED) FUO | NEUTROPENIC (IMMUNE-DEFICIENT) FUO | HIV-RELATED FUO |
|---|---|---|---|---|
| **Definition** | >38.3° C (100.9° F), >3 wk, >2 visits or 3 days in hospital | >38.3° C (100.9° F), >3 days, not present or incubating on admission | >38.3° C (100.9° F), >3 days, negative cultures after 48 hr | >38.3° C (100.9° F), >3 wk for outpatients, >3 days for inpatients, HIV infection confirmed |

**Table 177-4 Summary of Definitions and Major Features of the 4 Subtypes of Fever of Unknown Origin**

| FEATURE | CLASSIC FUO | HEALTHCARE-ASSOCIATED FUO | IMMUNE-DEFICIENT FUO | HIV-RELATED FUO |
|---|---|---|---|---|
| Definition | >38°C (100.4°F), >3 wk, >2 visits or 1 wk in hospital | ≥38°C (100.4°F), >1 wk, not present or incubating on admission | ≥38°C (100.4°F), >1 wk, negative cultures after 48 hr | ≥38°C (100.4°F), >3 wk for outpatients, >1 wk for inpatients, HIV infection confirmed |

# NEDENİ BİLİNMEYEN UZAMIŞ ATEŞİN NEDENLERİ

1. Enfeksiyonlar
2. Kollajen-vasküler hastalıklar
3. Maligniteler
4. Diğer hastalıklar
5. Tanı konulamayanlar

# NEDENİ BİLİNMEYEN UZAMIŞ ATEŞ
## Çocuklarda Nedenler

| YAZAR Hasta sayısı | Enfeksiyonlar | Malignite | KDH | Diğer | Tanı konulamayan |
|---|---|---|---|---|---|
| Pizzo 100 | %52 | %6 | %20 | %10 | %12 |
| McLung 99 | %29 | %8 | %11 | %19 | %33 |
| Lohr 54 | %33 | %13 | %20 | %15 | %8 |
| Mouaket 221 | %78 | %2 | %3 | %0 | %15 |
| Steele 109 | %22 | %2 | %6 | %3 | %67 |
| Çiftçi 102 | %44.2 | %11.7 | %6.8 | %24.5 | %12.8 |

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# Pyrexia of unknown origin in children: a review of 102 patients from Turkey

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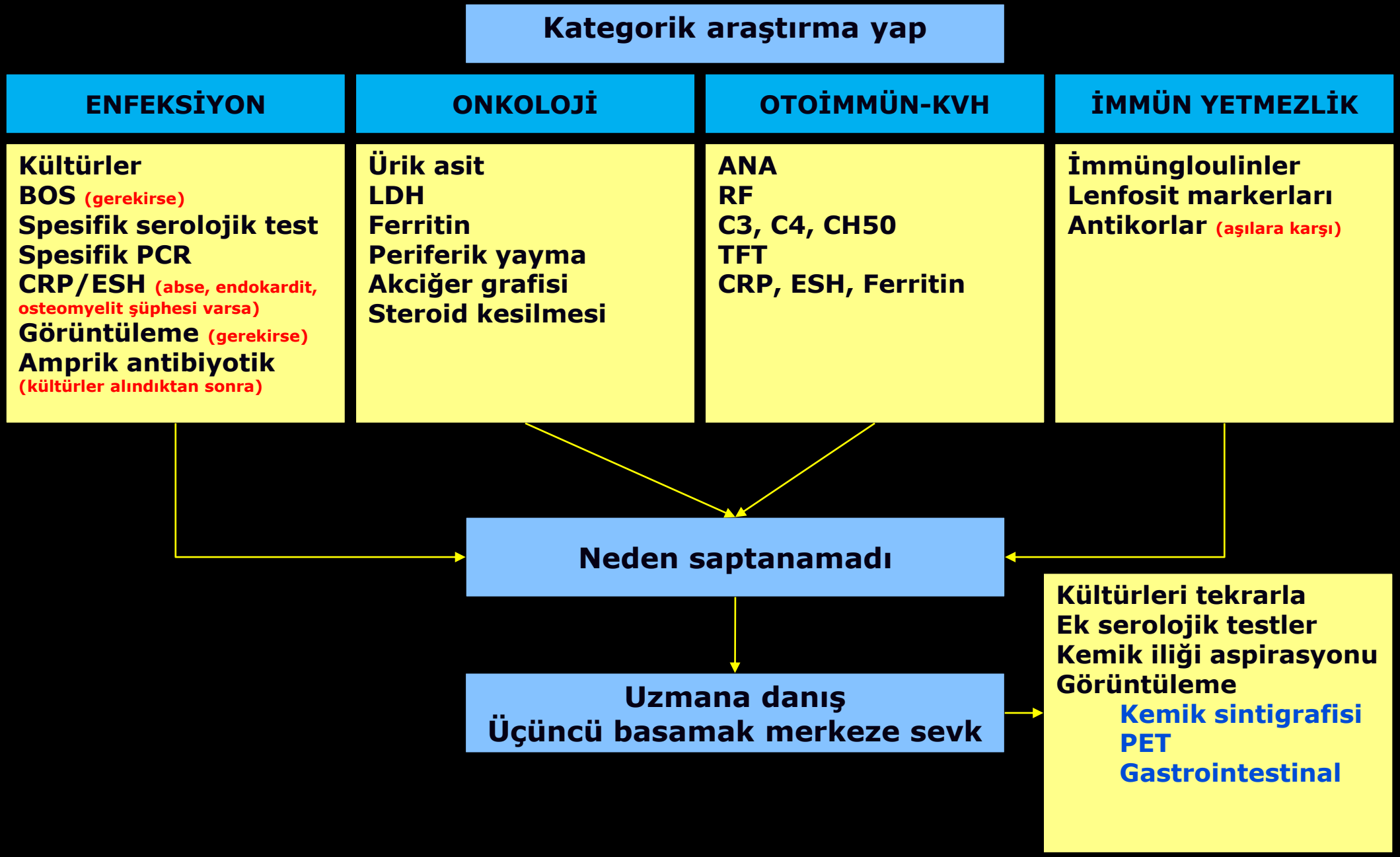
**Summary** Pyrexia of unknown origin (PUO) has not been appropriately investigated in Turkish children and therefore a study was undertaken to determine the causes of PUO and to evaluate which clinical procedures are useful in establishing a diagnosis. A total of 102 children fitting the classical PUO criteria seen in our clinic between 1995 and 2002 were investigated retrospectively. Infections, collagen vascular disorders, malignancy and miscellaneous conditions constituted 44.2%, 6.8%, 11.7% and 24.5% of cases, respectively, while 12.8% of the cases remained undiagnosed. Enteric fever, brucellosis and respiratory tract infections were the most commonly encountered infections, whereas familial Mediterranean fever was the commonest non-infectious disorder. Biopsy, aspiration, serology, bacteriology, radiology and observation of the clinical course were the most useful diagnostic procedures.

# NEDENİ BİLİNMEYEN UZAMIŞ ATEŞ

**İlk kez 1961 yılında Petersdorf ve Beeson**

**1. En az üç hafta süren**
**2. Bir hafta süreyle hastanede yapılan incelemelere karşın nedeni belirlenemeyen**
**3. Belgelenmiş 38.3 ºC üzerinde ateş**


Ateş ≥ 8 Gün
Hasta iyi görünüyor
Evet
Hayır
İLK ETAP
HASTANEYE YATIR
Gereksiz tedavileri kes
Kan sayımı ve formül
BFT, elektrolitler, glukoz
Transaminazlar
İdrar incelemesi
Gerekiyorsa görüntüleme yap
Gözlem ve muayeneye devam et
Gereksiz tedavileri kes
Kan sayımı ve formül
BFT, elektrolitler, glukoz
Transaminazlar
İdrar incelemesi
Gerekiyorsa görüntüleme yap
Gerekiyorsa BOS
CRP bakmayı düşün
Kültürler
Ampirik antibiyotik (kültür sonrası)
Gözlem ve muayeneye devam et
Ateş düştü
Neden saptandı
Evet
Hayır
Nedeni tedavi et
Kategorik araştırma yap


Kategorik araştırma yap
ENFEKSİYON
ONKOLOJİ
OTOİMMÜN-KVH
İMMÜN YETMEZLİK
Kültürler
BOS (gerekirse)
Spesifik serolojik test
Spesifik PCR
CRP/ESH (abse, endokardit, osteomyelit şüphesi varsa)
Görüntüleme (gerekirse)
Amprik antibiyotik
(kültürler alındıktan sonra)
Ürik asit
LDH
Ferritin
Periferik yayma
Akciğer grafisi
Steroid kesilmesi
ANA
RF
C3, C4, CH50
TFT
CRP, ESH, Ferritin
İmmüngloulinler
Lenfosit markerları
Antikorlar (aşılara karşı)
Neden saptanamadı
Uzmana danış
Üçüncü basamak merkeze sevk
Kültürleri tekrarla
Ek serolojik testler
Kemik iliği aspirasyonu
Görüntüleme
Kemik sintigrafisi
PET
Gastrointestinal


BİZ DE ALDIK ÇOCUĞU HASTANEYE GÖTÜRDÜK. 40 DERECE ATEŞİ ÇIKMIŞTI.
BİZ BÖYLE DERECE DEDİĞİMİZ İÇİN BOZULMUYO. SUN Dİ Mİ FAHRENAYT?
CIK!


NEDEN HİÇ CENNETLİ KARİKATÜR ÇİZİLMİYOR...
CENNETTE KOMİK BİR ŞEY OLMUYOR...
AMAAN... O ZAMAN NE ANLADIM ÖYLE CENNETTEN?
ATIYORUM BİR ODUN DAHA...
E HADİ AT MADEM...