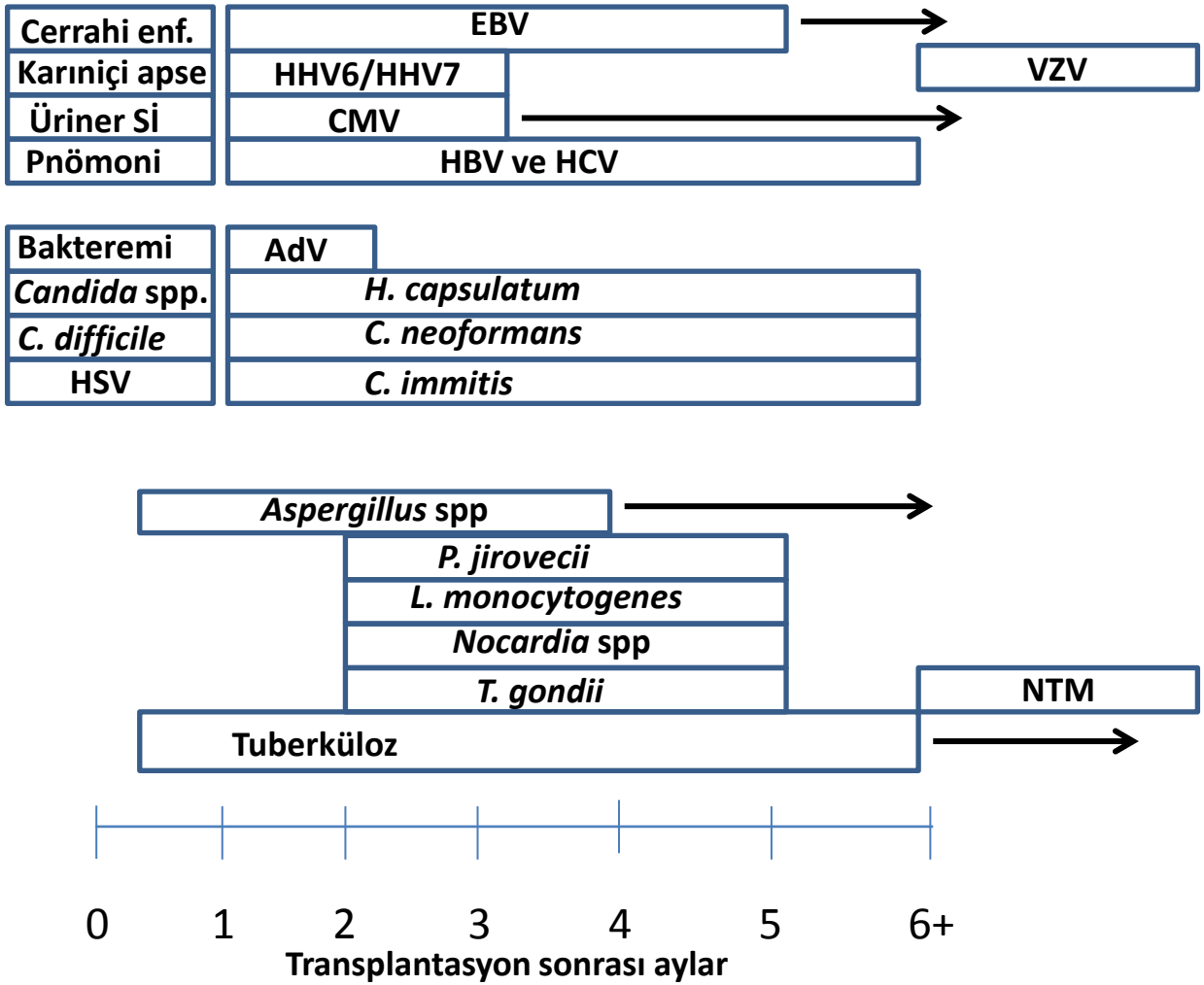
İmmünosüpresif Tedaviler ve İnfeksiyon Riski Olan Hastaya Yaklaşım

Prof. Dr. O. Şadi YENEN

24 Mart 2016, İstanbul



Antimikrobiyal profilaksi yokluğunda solid organ transplantasyonu sonrası enfeksiyonların görülüş zamanı

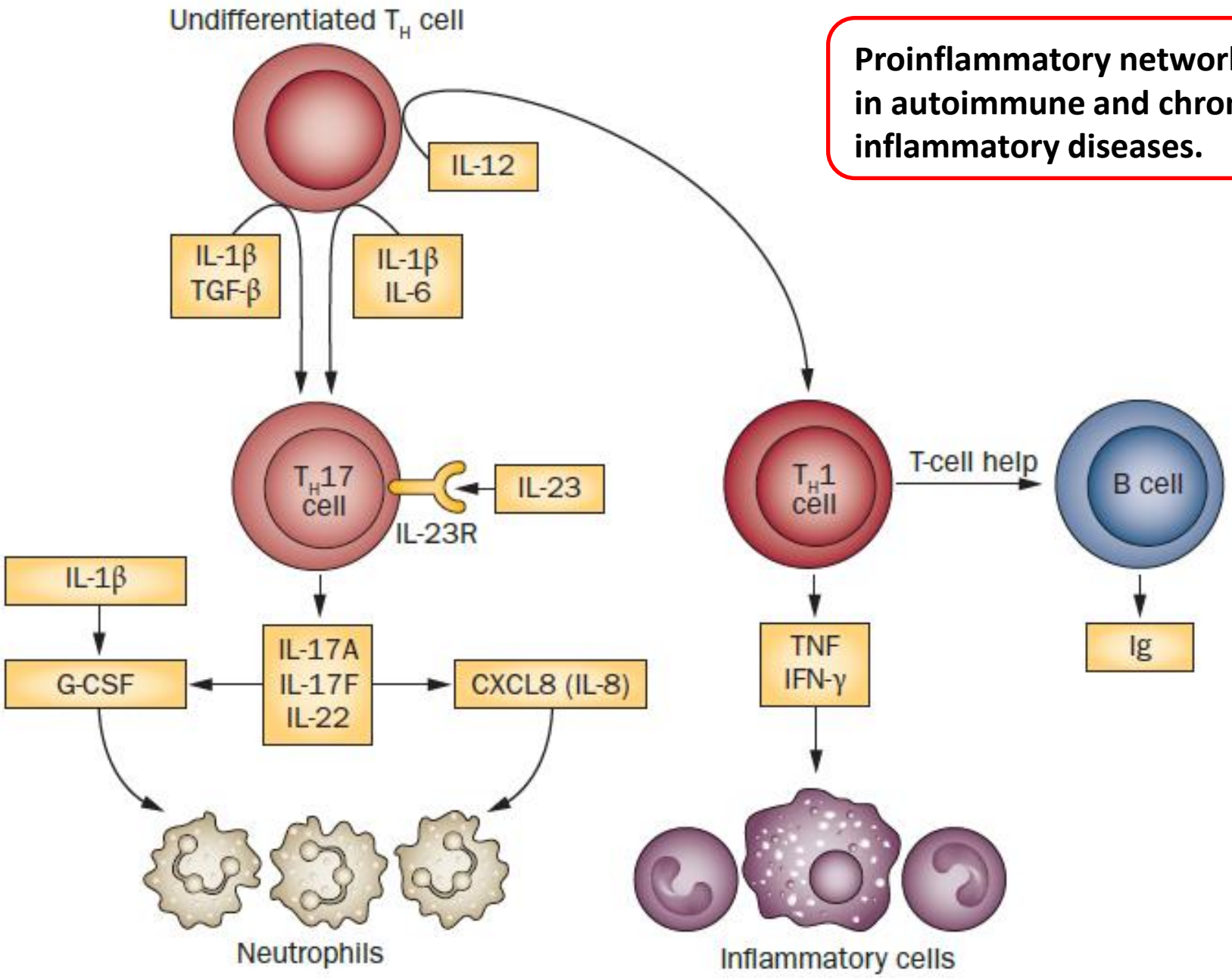
İmmünomodülatör biyolojik ajanlar

- **Rekombinant sitokinler**
  - Aldesleukin, Filgastrim, IFN-α, IFNβ-1a, IFNβ-1b, IFN-γ, PegIFNα-2a, PegIFNα-2b, Sargramostim
- **Antikor temelli tetikleyiciler**
  - Alemtuzumab, Brentuximab vedotin, Catumaxomab, Denileukin diftitox, Ibritumomab tiuxetan, *Muromonoab-CD3*, Ofatumumab, Rituximab, Tositumomab
- **Uyarı ya da etkileşim bloke ediciler**
  - Abatacept, Adalimumab, Alefacept, Anakinra, Basiliximab, Belatecept, Belimumab, Canakinumab, Certolizumab pegol, Denosumab, Eculizumab, *Etanercept*, *Golimumab*, Infliximab, Ipilimumab, Natalizumab, Omalizumab, Rilonacept, *Tocilizumab*, Ustekinumab

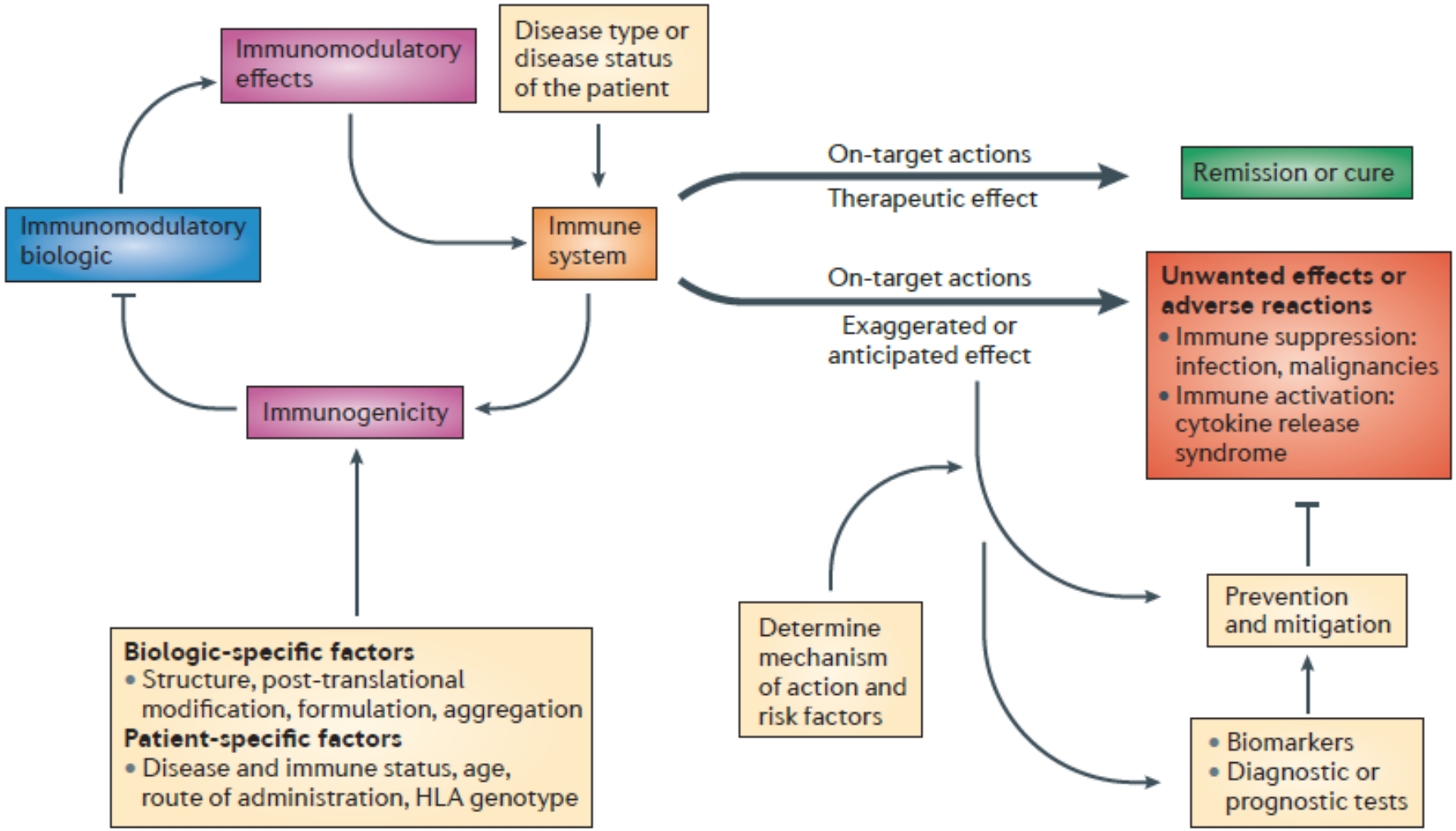
IgG temelli ürünlerin adlandırılması

- **-omab**: Fare IgG2
- **-ximab**: Fare-insan kimerik IgG1
- **-zumab**: Humanize IgG1
- **-umab**: Faj display veya transgenik fareden insan antikorları
- **-cept**: Fc-füzyon protein
- **-stim**: Fc-füzyon peptit
- **-axomab**: Üçlü işlevli (bispesifik) fare-sıçan hibridi

Proinflammatory networks in autoimmune and chronic inflammatory diseases.

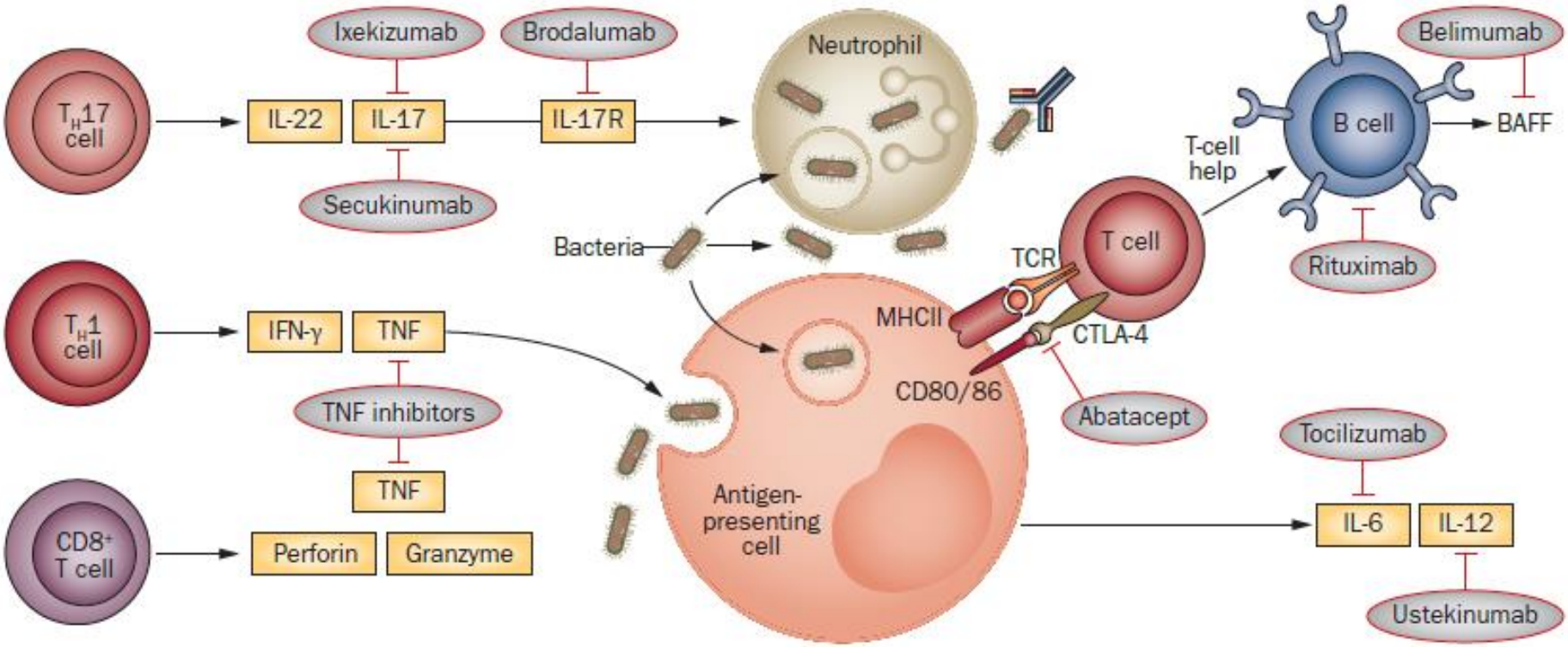


(Boyman O et al: 2014)



Complex interactions among the disease, the immune system and immunomodulatory biologics that influence safety and efficacy.

(Sathish JG et al: 2013)



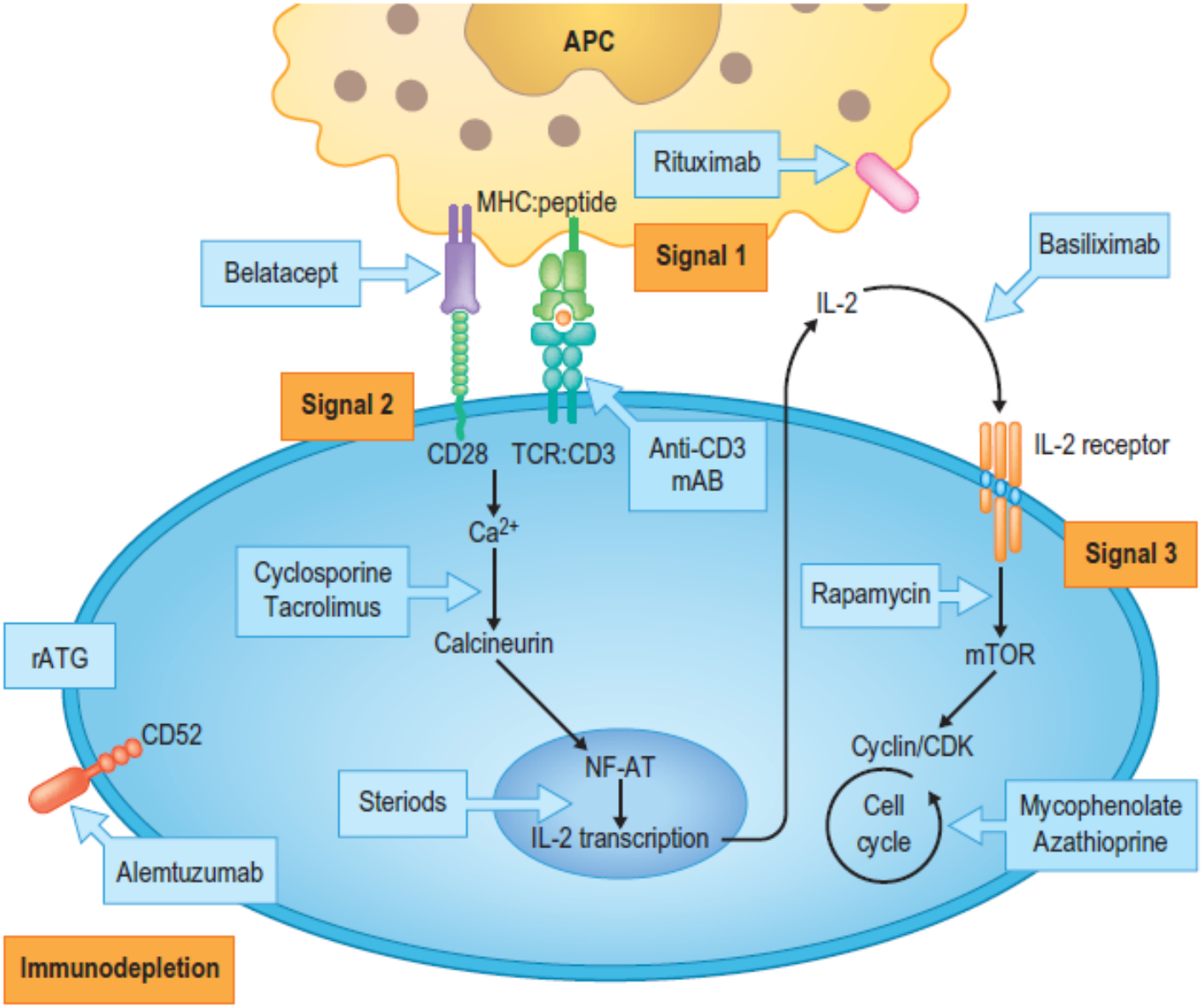
Biologic agents can inhibit immunity to pathogens

(Boyman O et al: 2014)

Table 4 | Management and prevention of infection-related adverse reactions to biologic agents

Adverse event	People at risk	General preventive or therapeutic measures	Specific preventive or therapeutic measures
Severe bacterial infections, opportunistic infections	Individuals aged >60 years or with chronic kidney disease, chronic lung disease or impaired lung function[79]	Early detection of pre-existing foci of infection Recognition of a past history of severe infection Avoidance of concomitant use of immunosuppressive medication Monitor $CD4^+$ T-cell count ($>0.2\times10^9$/l)	Vaccination against specific pathogens (*Streptococcus pneumoniae*) prior to treatment with biologic agents When $CD4^+$ T cells $<0.2\times10^9$/l, start *Pneumocystis jirovecii* prophylaxis Monitor serum IgG titres when treating with rituximab[83]
Tuberculosis	Individuals aged >60 years or with chronic kidney disease, chronic lung disease or impaired lung function[79]	Screening for latent TB	Isoniazid or rifampicin prophylaxis if documented latent TB
Herpes zoster	Individuals aged ≥50 years	Antiviral therapy	Vaccination prior to treatment with biologic agents[202]
Hepatitis B	All (including occult carriers)	Monitor viraemia Higher risk of reactivation under biologic therapy for HBV infection than with HCV infection[92]	HBV vaccine prior to treatment with biologic agents Antiviral prophylaxis for chronic HBV[109,110] Avoid anti-cytokine biologic agents[93,94] and rituximab[106,107]
Hepatitis C	All	Monitor viraemia Higher risk of reactivation under biologic therapy for HBV compared to HCV[92]	Acceptable risk of reactivation when using cytokine inhibitors or rituximab in patients with cryoglobulinaemia-associated vasculitis or hyperglobulinaemic vasculitis[97]
Vaccination	All	Contraindication to live vaccines (nasal flu, BCG, MMR or yellow fever)[200]	Zoster vaccine acceptable in patients receiving low-dose systemic steroids[202]

Abbreviations: BCG, Bacillus Calmette–Guérin; HBV, hepatitis B virus; HCV, hepatitis C virus; MMR, measles mumps rubella; TB, tuberculosis.

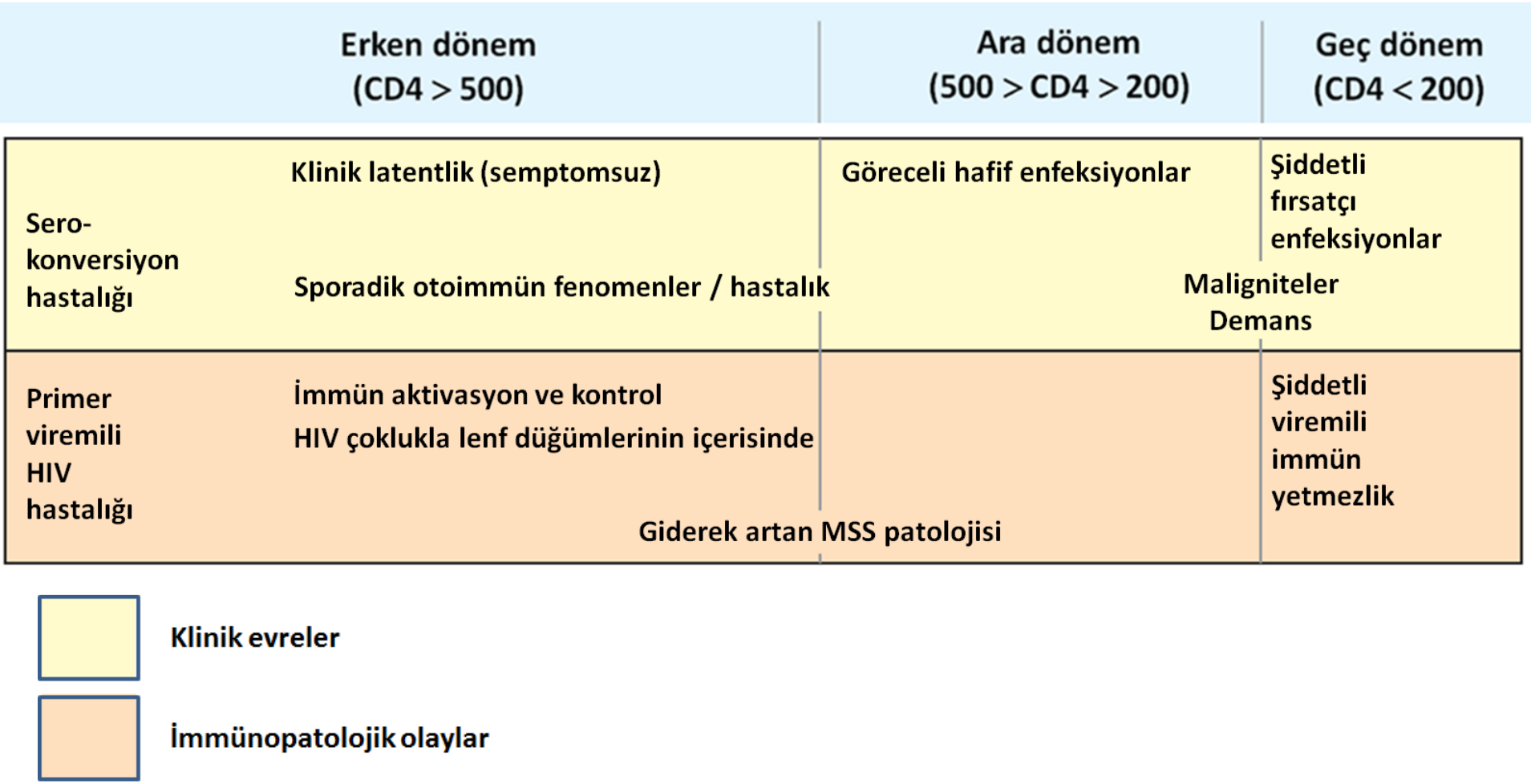


Current immunosuppressive drugs and their targets.

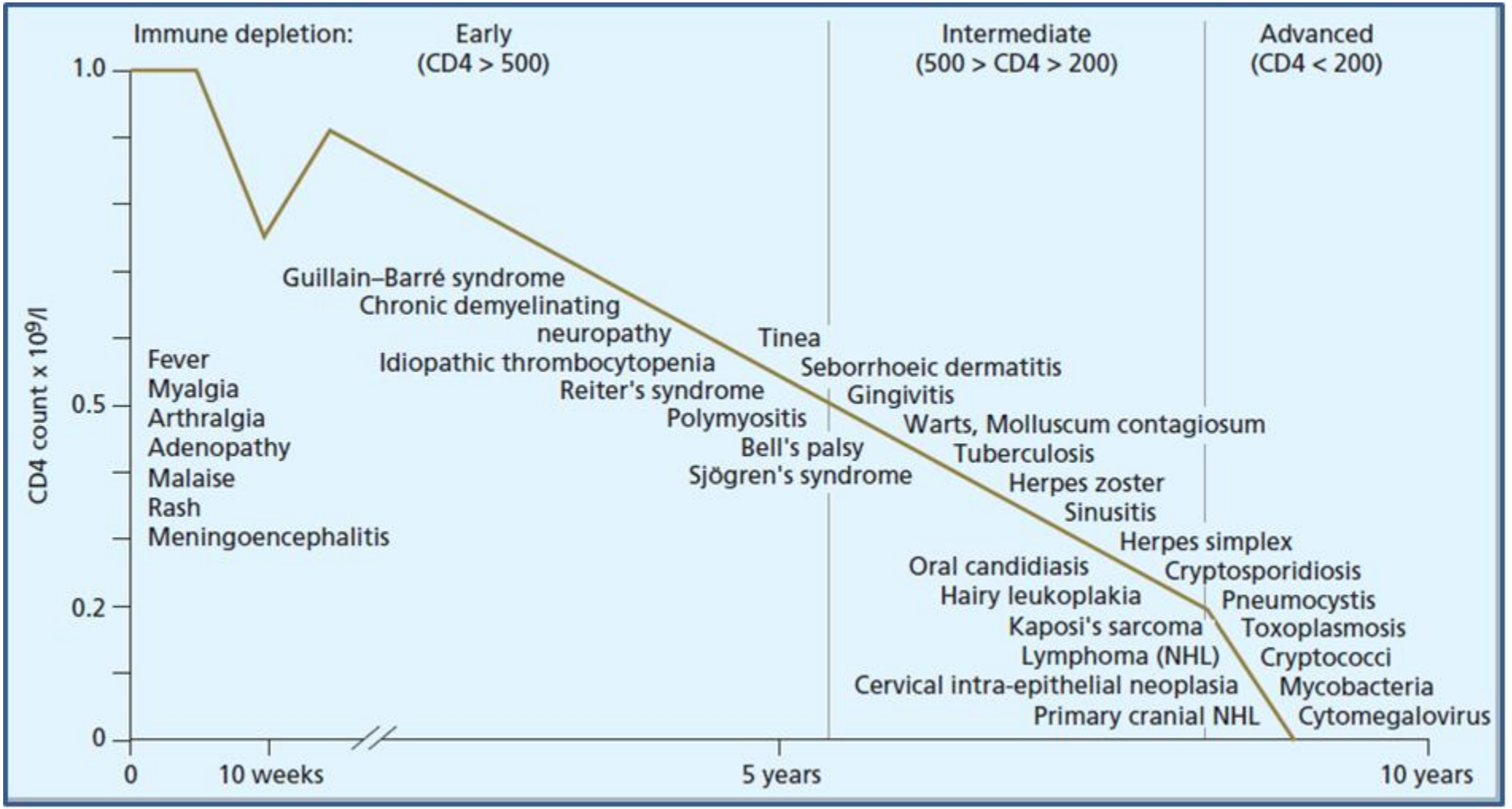
NF-AT: Nuclear factor of activated T-cell

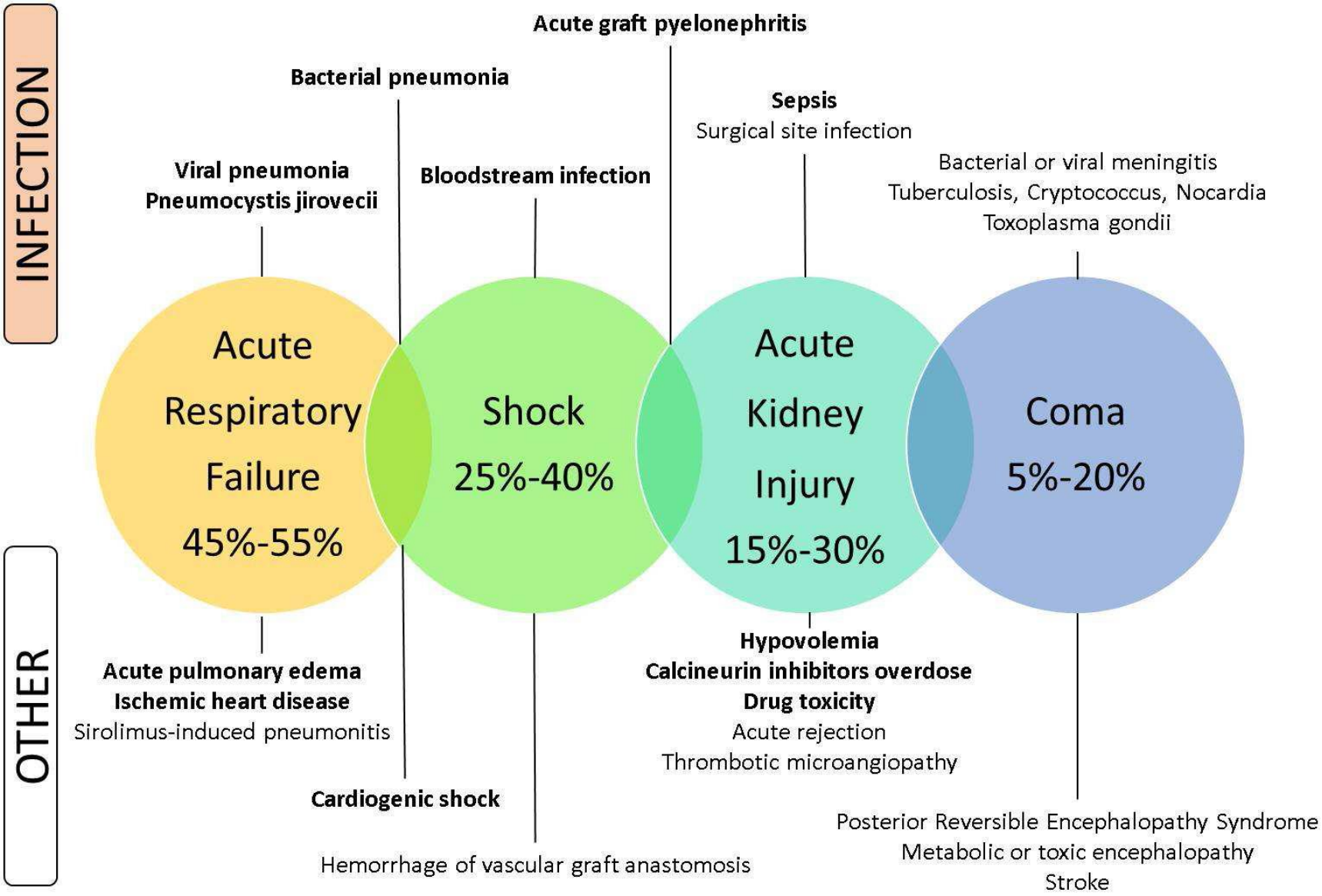
(Wood K et al: 2013)

HIV enfeksiyonu – Klinik evreler ve immünopatolojik olaylar



CD4 sayısı – Klinik ilişki





Admission diagnoses and corresponding etiologies in kidney recipients admitted to the ICU.

(Canet E et al: 2016)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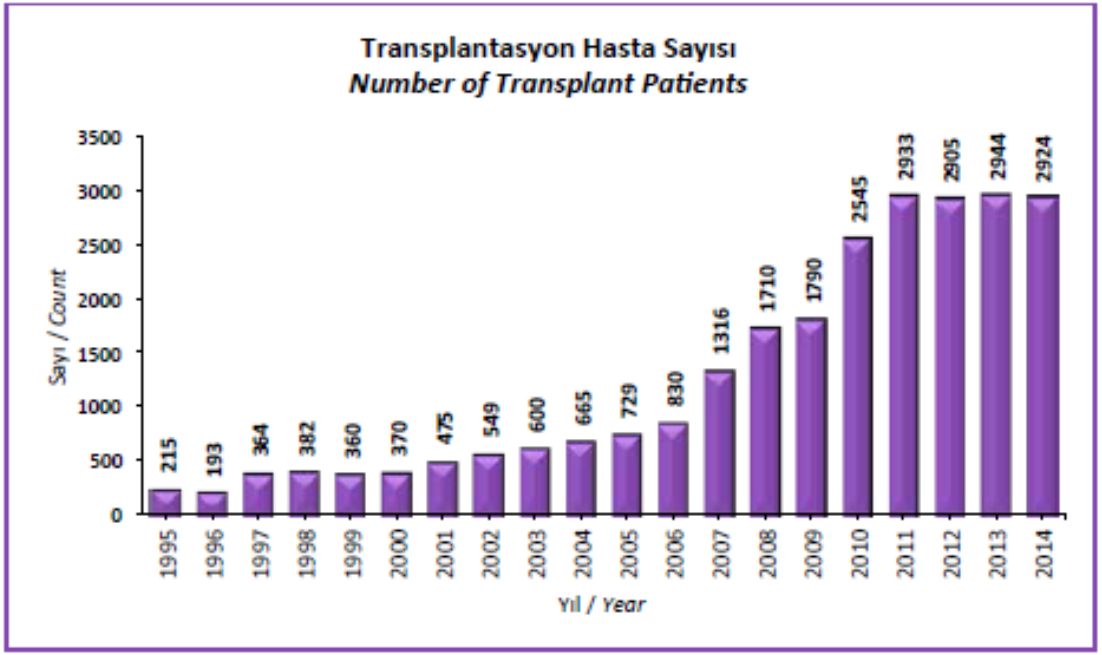
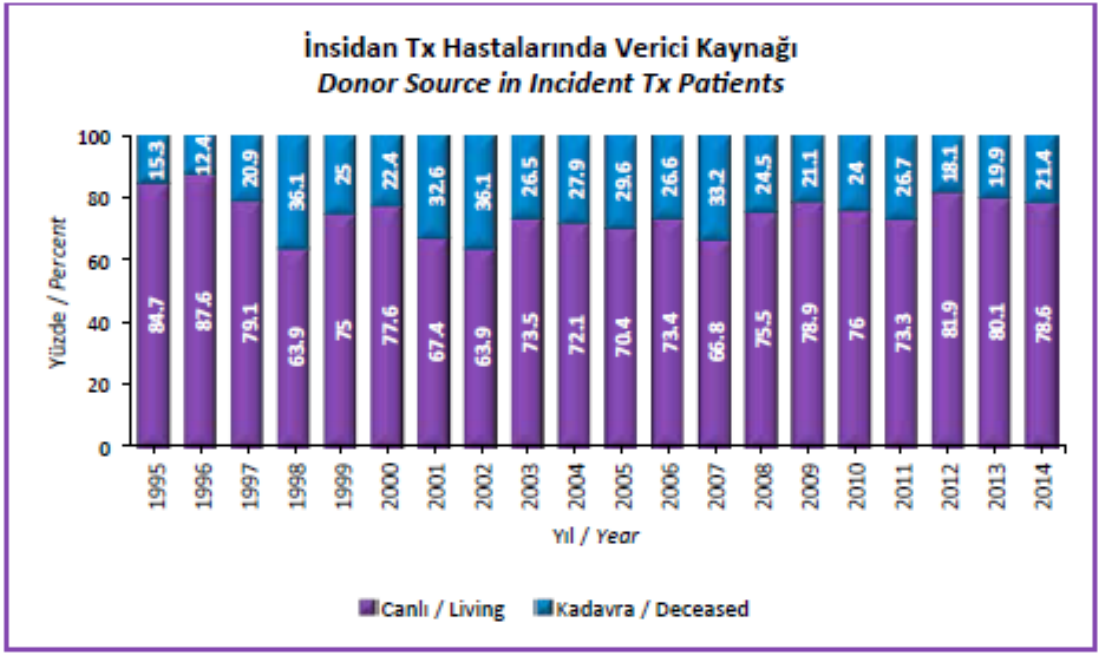

Transplantasyon Hasta Sayısı
Number of Transplant Patients
Sayı / Count
Yıl / Year
1995 215
1996 193
1997 364
1998 382
1999 360
2000 370
2001 475
2002 549
2003 600
2004 665
2005 729
2006 830
2007 1316
2008 1710
2009 1790
2010 2545
2011 2933
2012 2905
2013 2944
2014 2924


İnsidan Tx Hastalarında Verici Kaynağı
Donor Source in Incident Tx Patients
Yüzde / Percent
Yıl / Year
1995 84.7 15.3
1996 87.6 12.4
1997 79.1 20.9
1998 63.9 36.1
1999 75 25
2000 77.6 22.4
2001 67.4 32.6
2002 63.9 36.1
2003 73.5 26.5
2004 72.1 27.9
2005 70.4 29.6
2006 73.4 26.6
2007 66.8 33.2
2008 75.5 24.5
2009 78.9 21.1
2010 76 24
2011 73.3 26.7
2012 81.9 18.1
2013 80.1 19.9
2014 78.6 21.4
Canlı / Living
Kadavra / Deceased

TABLO 16. 2014 yılında ölen BTx'li hastaların ölüm nedenlerine göre dağılımı (23 merkezden elde edilen verilere göre).

	n	%
İnfeksiyon / *Infection*	16	43.24
Kardiyovasküler / *Cardiovascular*	12	32.43
Serebrovasküler / *Cerebrovascular*	2	5.41
Akciğer yetmezliği / *Pulmonary failure*	1	2.70
Diğer / *Other*	6	16.22
Toplam / *Total*	37	100.00