

Fig. 19.14 The life cycle of *Chlamydia*. (EB, elementary body; RB, reticulate body.)

38a

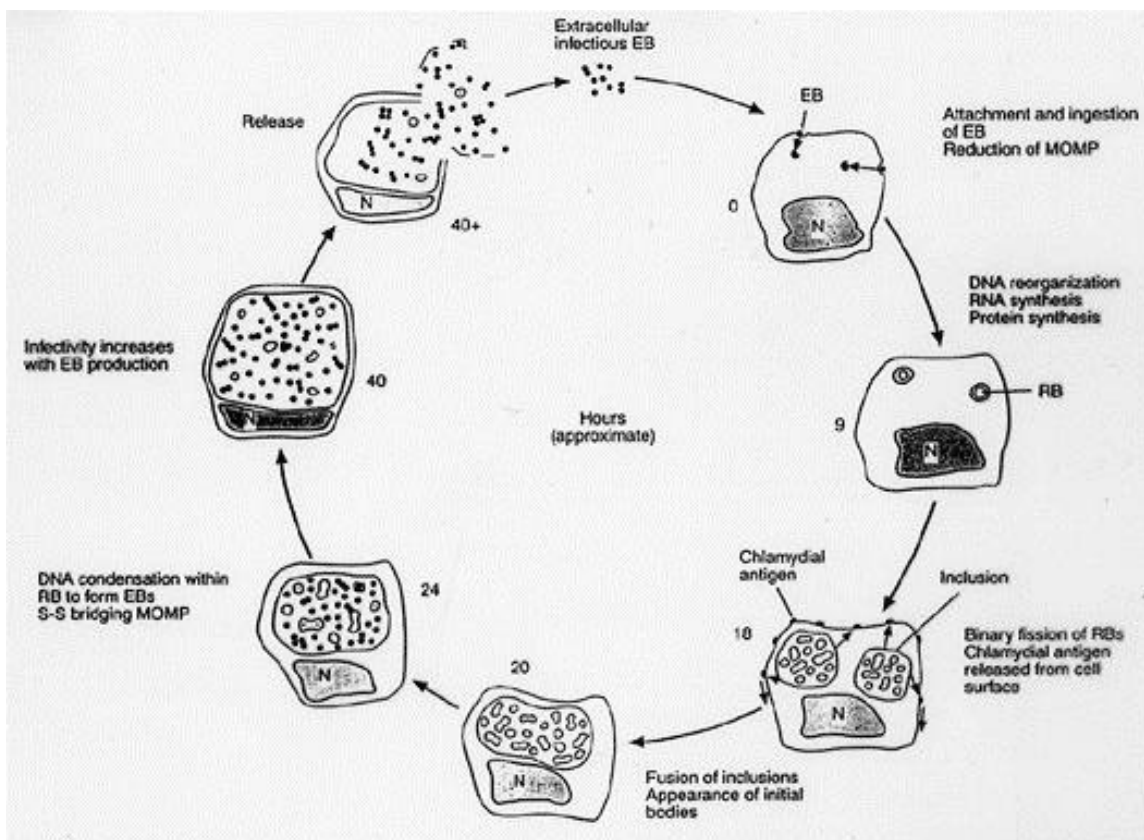


Fig. 59.2 The developmental cycle of *C. trachomatis*. Infection is initiated by infectious EB (top of diagram) which attach to and enter the host cell by poorly understood mechanisms. By 9 h after infection the EB have differentiated into RB. The RB undergo binary fission within the enlarging endosome and genus-specific chlamydial antigen becomes associated with the host cell surface. By 24 h the inclusions contain EB derived from the RB. Infectious EB are released by lysis at 40–48 h. Maturation of EB from RB may be impaired by factors such as interferon- γ , resulting in persistent infection of host cells.

38b

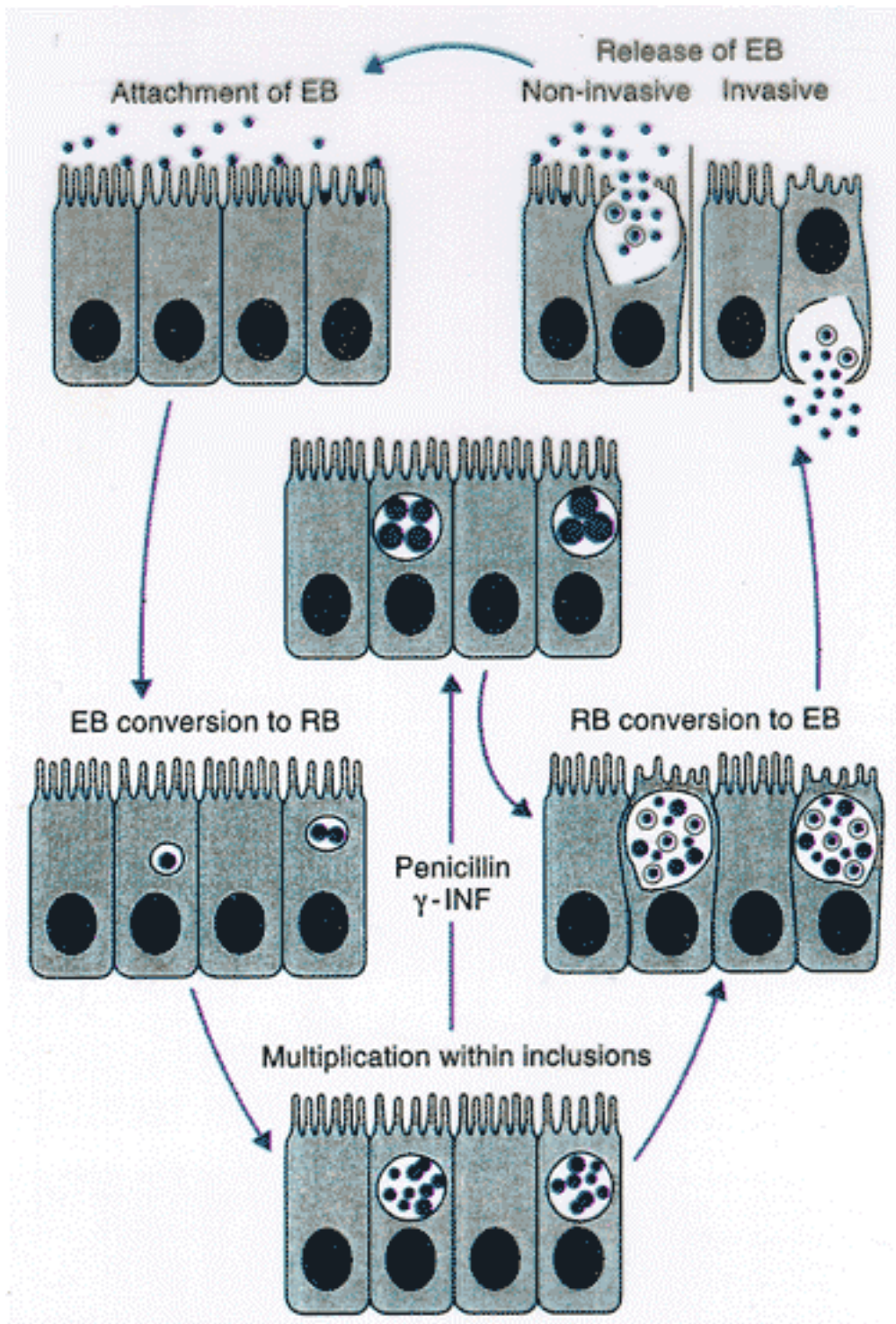


Figure 27.1. The chlamydia developmental cycle.

MEDICALLY IMPORTANT SPECIES OF CHLAMYDIA			
species	serotype	natural host	disease in humans
<i>C. trachomatis</i>	A,B,C	humans	trachoma
	D-K	humans	cervicitis urethritis proctitis conjunctivitis pneumonia (in neonates)
	L1,L2,L3	humans	lymphogranuloma venereum
<i>C. psittaci</i>	?	birds and non-human mammals	pneumonia
<i>C. pneumoniae</i>	1	humans	acute respiratory disease

Fig. 19.15 Medically important species of chlamydia. *Chlamydia trachomatis* is the species associated with sexually transmitted disease.

38d

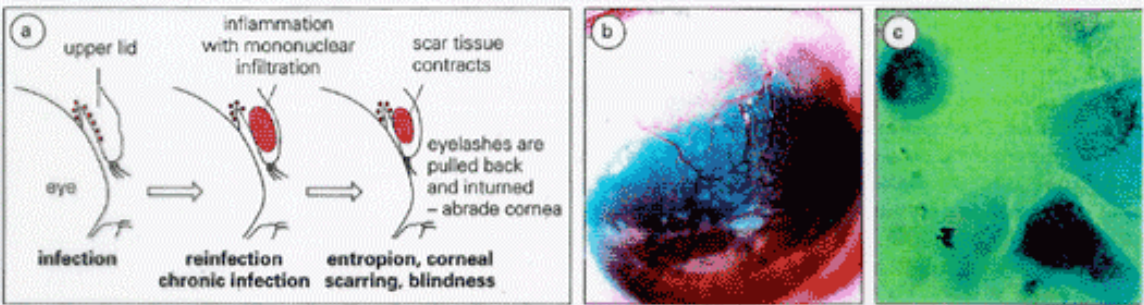
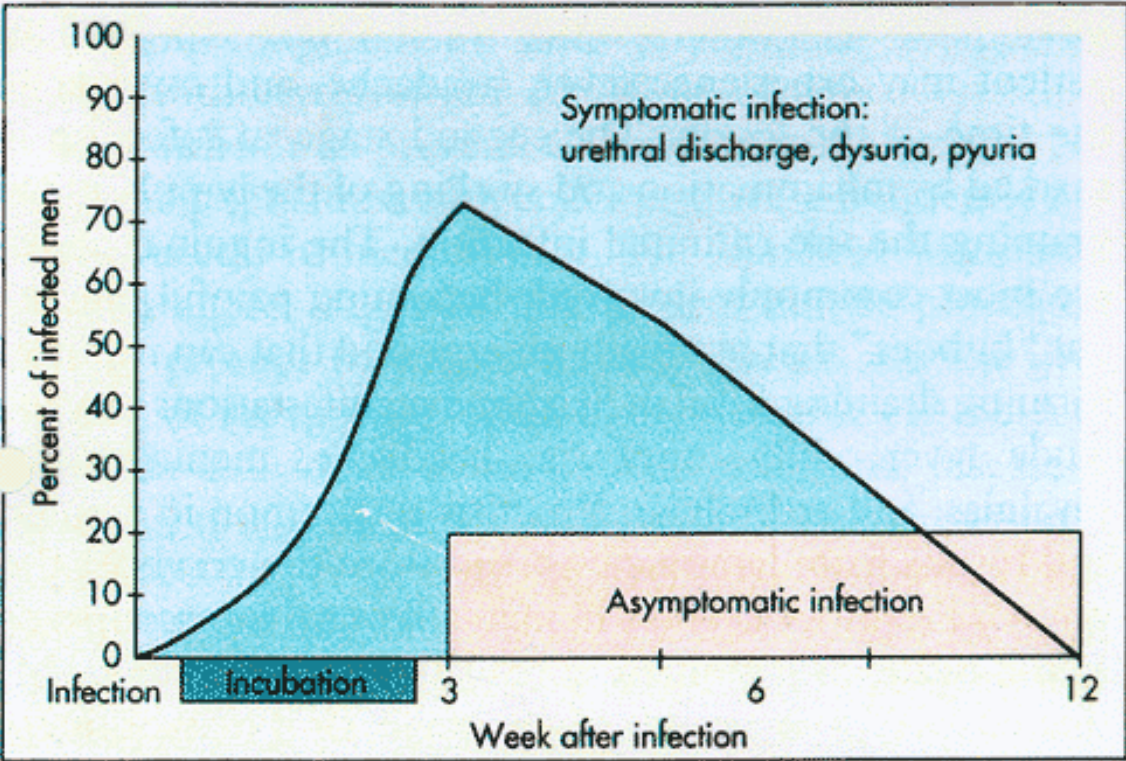


Fig. 16.4 *Chlamydia trachomatis* and blindness. The pathogenesis is outlined in (a). Scarring of the cornea (b) results from long-standing ocular trachoma. (Courtesy of RC Barnes.) Giemsa stain of an ocular scraping from trachoma (c) shows *C. trachomatis* as an intracellular inclusion. (Courtesy of G Ridgway.)

38e

	Nongonococcal Urethritis	Gonococcal Urethritis
Symptoms	Asymptomatic, mild dysuria, frequent urination	Dysuria, frequent urination
Discharge	Mucoid	Purulent
Urethral Swab Gram Stain	≥ 10 PMN per high-powered field	PMN with gram- negative intracellular diplococci
Causative Agent	<i>Chlamydia</i> <i>trachomatis</i> <i>Ureaplasma</i> <i>urealyticum</i> <i>Trichomonas</i> <i>vaginalis</i> Herpes simplex (rarely)	<i>Neisseria</i> <i>gonorrhoeae</i>
Treatment	Azithromycin Doxycycline Erythromycin Ofloxacin	Cefixime Ceftriaxone Ciprofloxacin Ofloxacin



38g