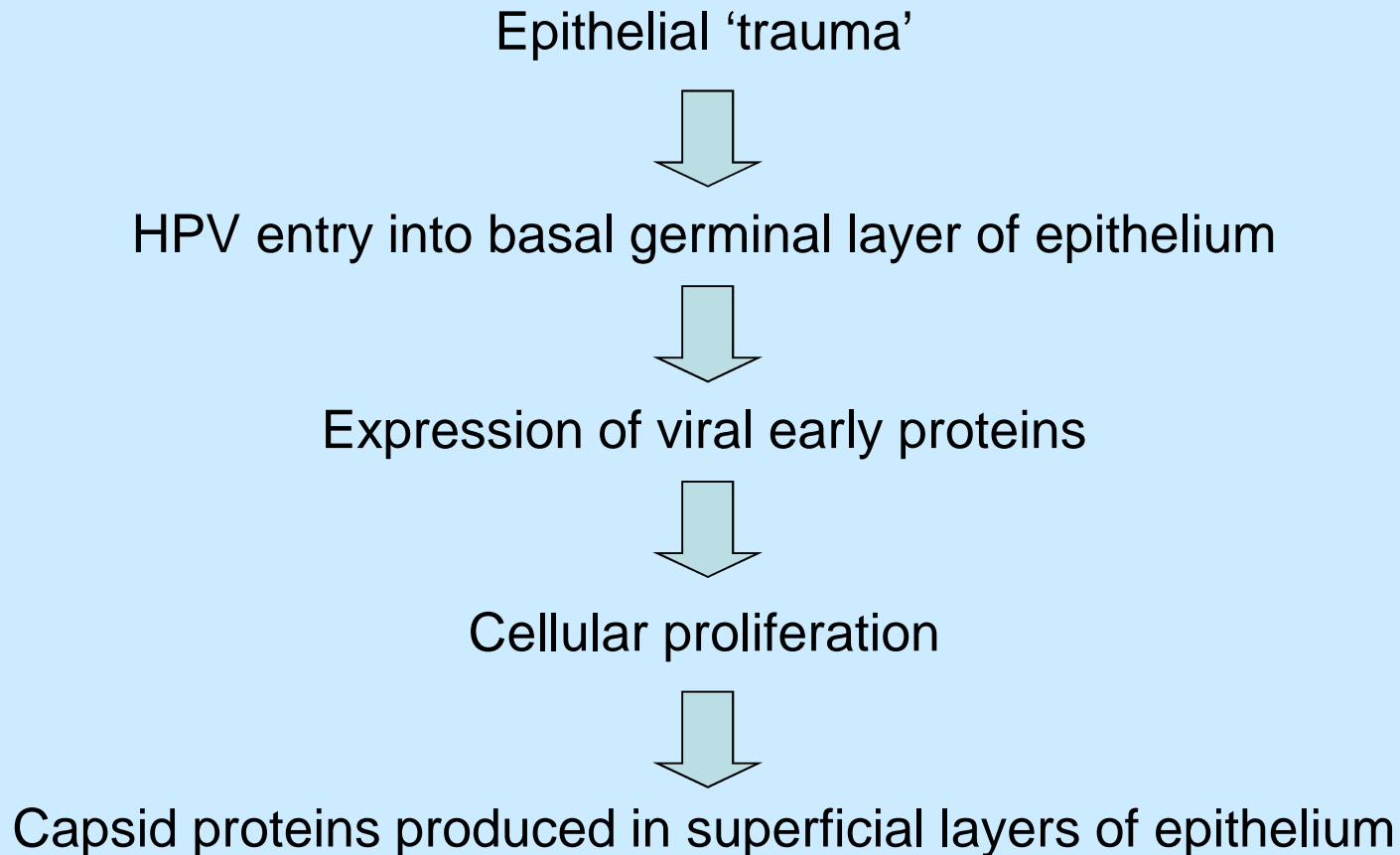


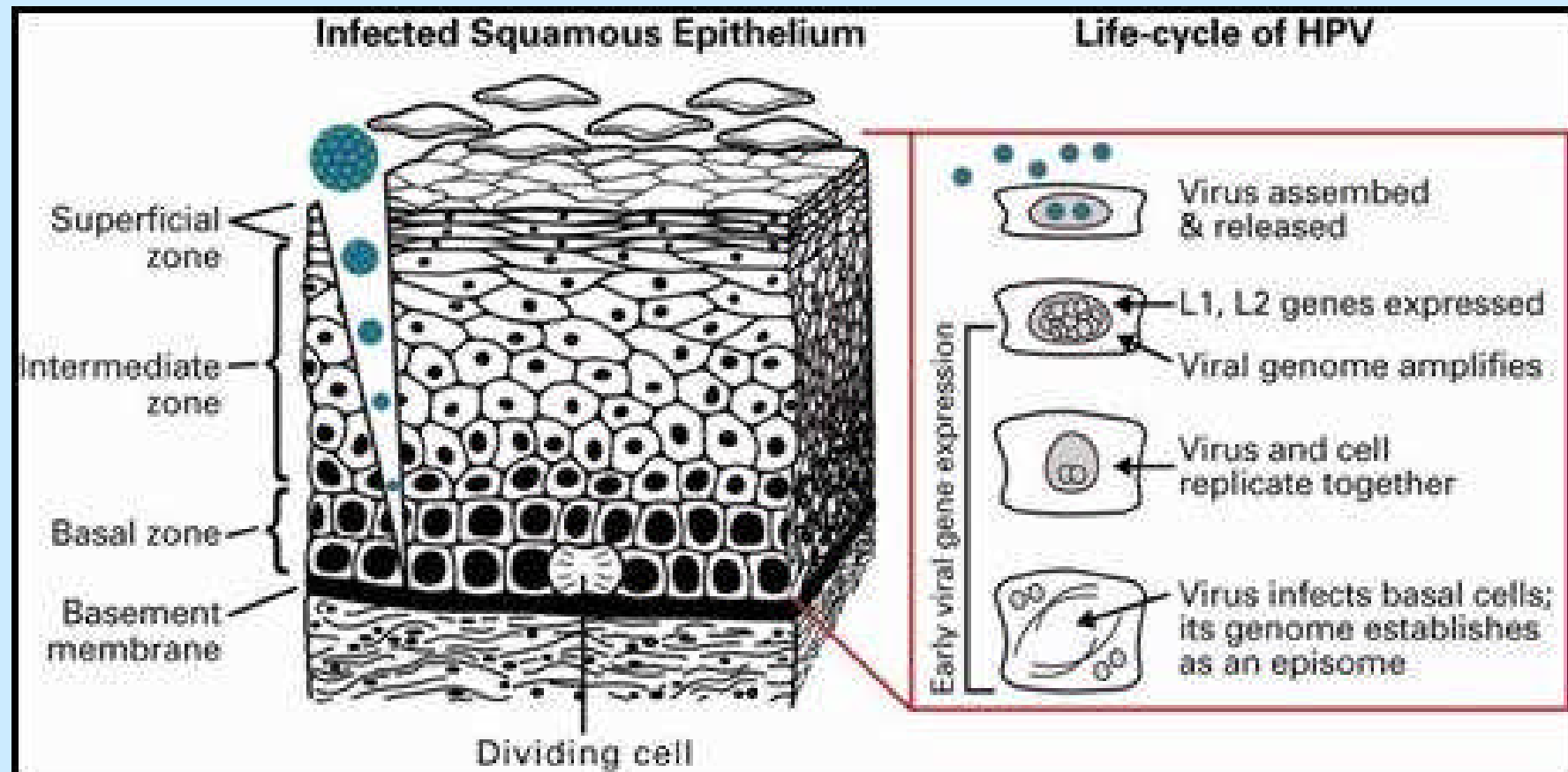
Human papillomavirus infection

Pathology

Pathogenesis of genital warts

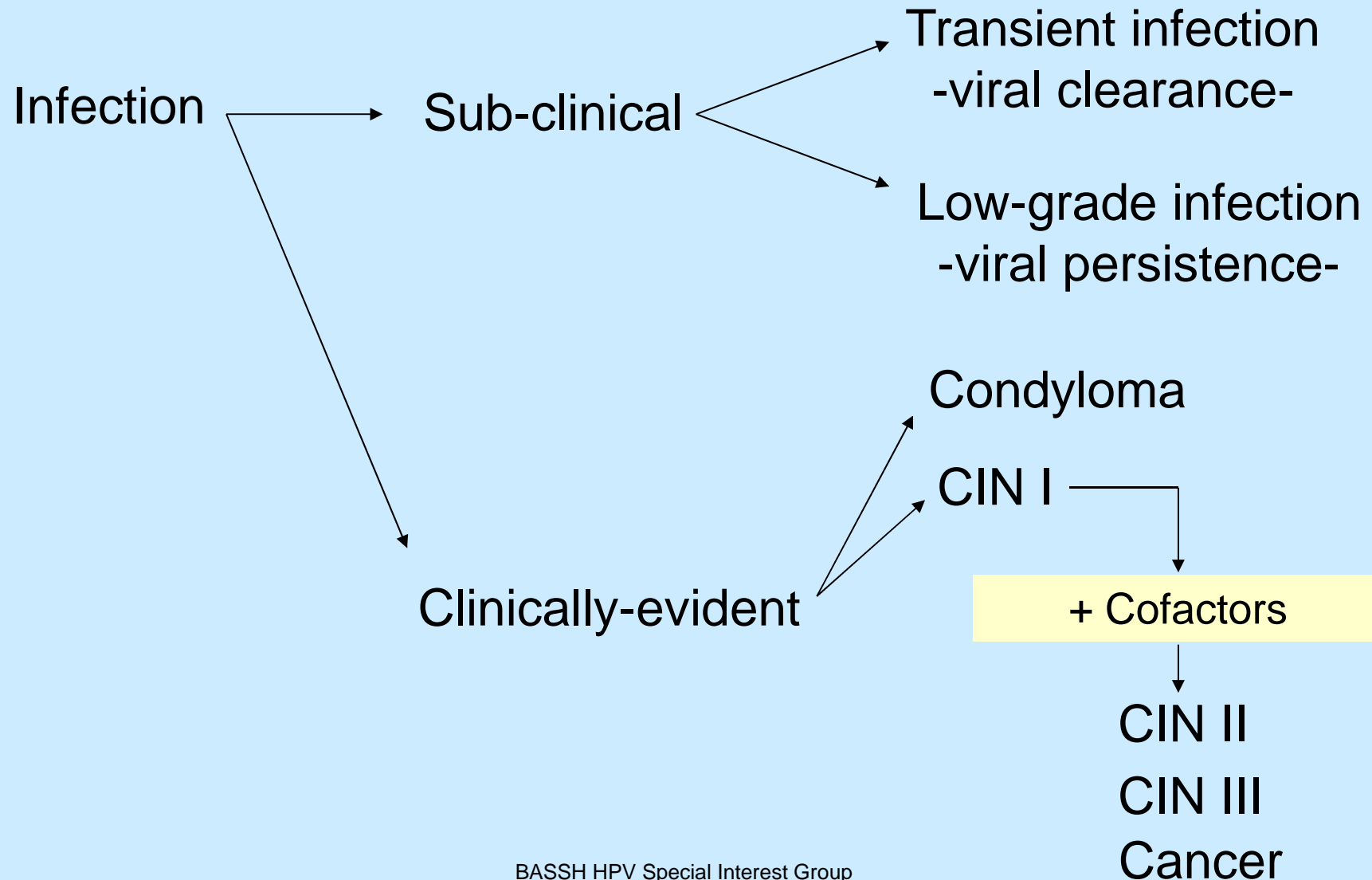


Productive life cycle of HPV is linked to epithelial differentiation



Source: <http://www.merckmedicus.com/pp/us/hcp/diseasemodules/hpvd/natural-history.jsp>; May 2007

HPV natural history



Cofactors in HPV disease

- Environmental
 - Smoking
- Immunological
 - Biological aging
 - Immunosuppression (HIV, transplant recipients)
 - Genetic (Li-Fraumeni syndrome; HLA polymorphisms)

Duration of HPV infection

	HPV types	Months, median (95% CI)
Franco (1999)*	“Oncogenic types”	8.1 (7.8-8.3)
	“Nononcogenic types”	4.8 (3.9-5.6)
Woodman (2001)**	HPV-16	10.3 (6.8-17.3)
	HPV-18	7.8 (6.0-12.6)

*J Infect Dis. 1999 Nov;180(5):1415-23

**Lancet. 2001 Jun 9;357(9271):1831-6

Limitations of HPV studies

- Assay sensitivity: NAAT vs DNA hybridisation studies
- Assay specificity: complicated by multiple HPV types
- Multiple HPV infections at same site
- Absence of detection \neq Absence of infection

Histological features of HPV infection

- Koilocytosis
- Acanthosis
- Multinucleation
- Hyperkeratosis and parakeratosis
- Papillomatosis

Correlation of aceto-white lesions and confirmatory diagnostic tests

91 men with aceto white lesions

78 (86%) penoscopy appearance of GPV1

56 (62%) penoscopy and histopathology agreement

55 (60%) penoscopy and hybridisation assay

Wikstrom 1992