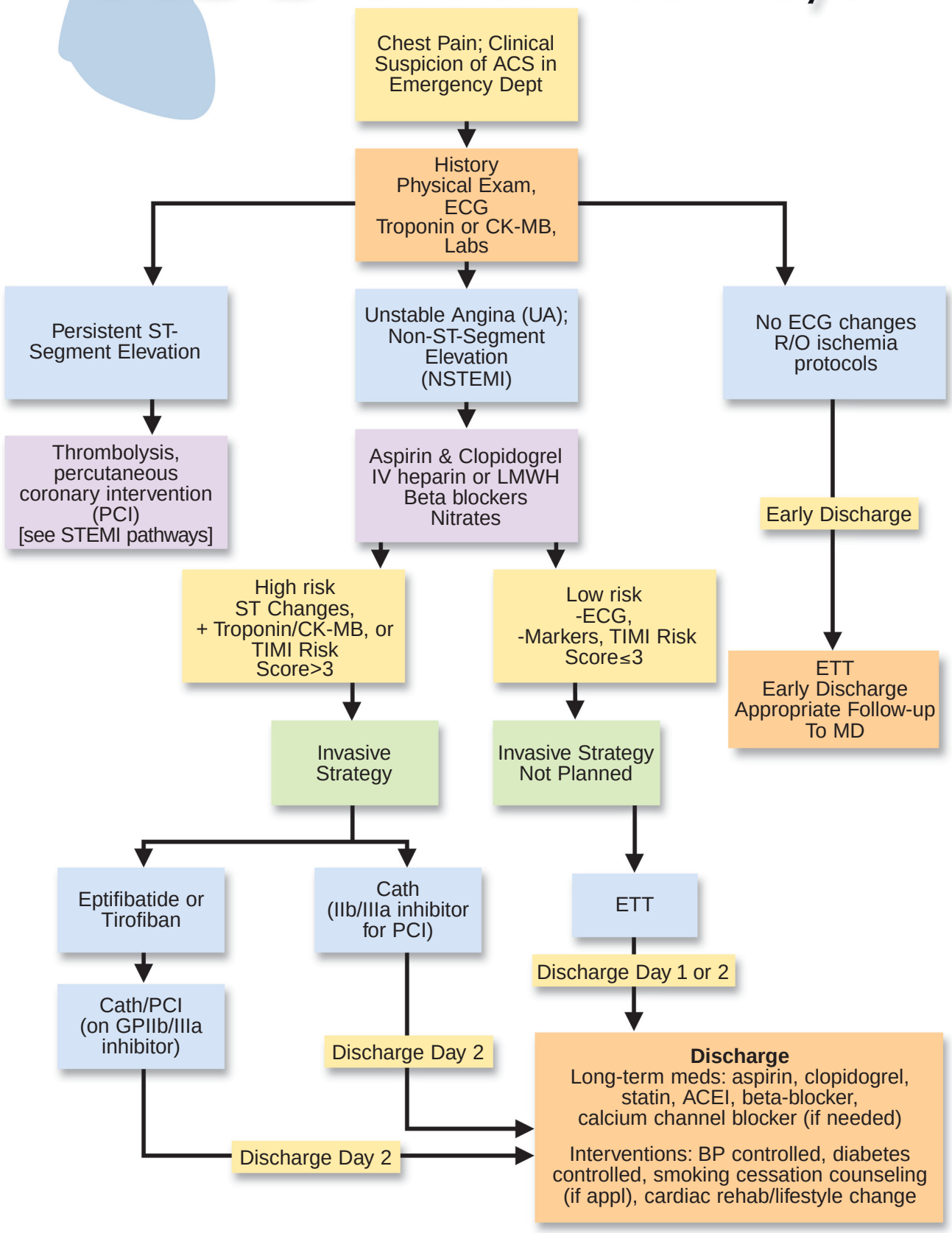ACS Critical Pathways