

Acetylsalicylic acid ASS

General:

Aspirin is one of the most frequently used drugs in the treatment of mild to moderate pain, including that of migraines and fever. It is often combined with other non-steroidal anti-inflammatory drugs and opioid analgesics in the treatment of moderate to severe pain.

In high doses, aspirin and other salicylates are used in the treatment of rheumatic fever, rheumatic arthritis, and other inflammatory joint conditions.

In lower doses, aspirin (or its equivalents, e.g. carbasalate calcium) also inhibits platelet aggregation, and has been shown to reduce the incidence of transient ischemic attacks and unstable angina in men, and can be used prophylactically. It is also used in the treatment of pericarditis, coronary artery disease, and acute myocardial infarction.

When small doses (less than 250 mg in an adult) are ingested, all pathways proceed by first order kinetics, with an elimination half-life of about 2 to 4.5 hours.

When higher doses of salicylate are ingested (more than 4 g), the half-life becomes much longer (1530 hours) because the biotransformation pathways concerned with the formation of salicyluric acid and salicyl phenolic glucuronide become saturated. Renal excretion of salicylic acid becomes increasingly important as the metabolic pathways become saturated, because it is extremely sensitive to changes in urinary pH. There is a 10 to 20 fold increase in renal clearance when urine pH is increased from 5 to 8. The use of urinary alkalinization exploits this particular aspect of salicylate elimination.

Indication: Therapy monitoring

Material: 1 ml serum

TAT: 5-7 days, Germany

Method: HPLC

Units: mg/l

Ref.- range: <50 as analgetic, <250 as antirheumatic