



Prothrombin Time (PT) is one of the most frequently measured/analysed coagulation parameter. The Owren's PT method is predominantly used in Scandinavia, Japan and parts of Benelux and Austria, where it is preferred over PT Quick method since it is less sensitive to interferences, and can be used with both whole blood and plasma.

- Both PT methods can be used to monitor oral anticoagulant therapy and as fundamental screenings test for acquired or inherited bleeding disorders
- Both methods are measuring prothrombin complex
- Results are dependent on vitamin K-dependent factors FII, FVII, FX (not FIX)
- Both methods are clotting based methods and result in a time measured from addition of thromboplastin to a detected clot
- The time to form a clot is called PT (clotting) time and can be translated into INR and PT%
- INR is a quote between the patient and a normal donors PT-time to form a clot
- To make sure that all results are comparable, ISI-value should be determined
- ISI needs to be determined for each lot of thromboplastin and each instrument in the laboratory

PT Quick (1935)	PT Owren's (1951)
Undiluted plasma	Diluted plasma 1:7
Plasma + reagent 1:3	Plasma + reagent 1:3
Method is dependent on Vitamin K-dependent factors and of FV and fibrinogen	Method is dependent on vitamin K-dependent factors
Reagents contains rabbit thromboplastin and calcium	Reagent contains rabbit thromboplastin, calcium and depleted bovine plasma
Unspecific, sensitive for FV and fibrinogen	Specific for prothrombin (FII), FVII and FX
Results are dependent on citrate	Independent on citrate
Lupus sensitive	Lupus insensitive