

INR VALUES AND LOW ISI VALUES

The International Normalized Ratio (INR) is a standardized format for prothrombin time (PT) testing. Different thromboplastins, the reagents for a PT test, have varying responsiveness to the blood factors that affect coagulation. In order to compare patient results from reagent-to-reagent or lab-to-lab, one must account for different reagent strengths. The INR was designed to “normalize” results so that any result from any good lab would lead to the same treatment decision.

$$\text{INR} = (\text{PT}/\text{PT}_n)^{\text{ISI}}$$

PT = Patient’s prothrombin time in plasma seconds

PT_n = Mean prothrombin time in plasma seconds of non-anticoagulated population

ISI = International Sensitivity Index

CUVETTE TECHNOLOGY

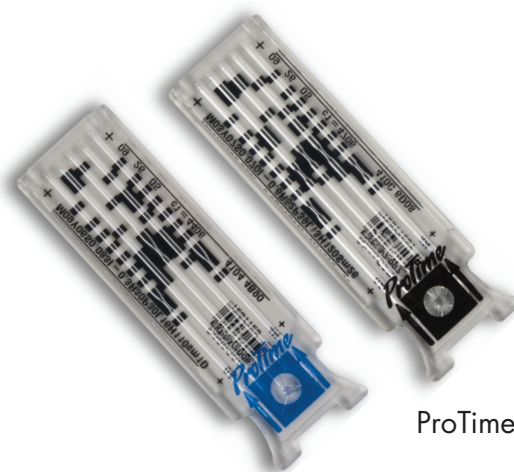
HERE IS AN EXAMPLE: Mr. Smith had two PT tests done.

	<u>PT Seconds</u>	<u>INR</u>
Hospital	39.15	3.00
Physician’s office	21.30	3.00

PT seconds vs. ISI				
INR	ISI = 1.0	ISI = 1.4	ISI = 1.8	ISI = 2.0
1.00	13.05	12.75	12.45	12.30
1.50	19.58	17.03	15.60	15.06
2.00	26.10	20.92	18.30	17.39
2.50	32.63	24.53	20.71	19.45
3.00	39.15	27.95	22.92	21.30
3.50	45.68	31.20	24.97	23.01
4.00	52.20	34.32	26.89	24.60

In both cases, the INR result was 3.0. One can see from the chart that the hospital used a highly-sensitive reagent, similar to the reagent used in the ProTime[®] cuvettes, with an ISI = 1.0. The physician sent Mr. Smith’s sample to a laboratory that used a reagent with ISI = 2.0.

- ON-BOARD QUALITY CONTROL
Reagent integrity automatically checked with each test
- SENSITIVE THROMBOPLASTIN (ISI = 1.0)
As recommended by AHA, CAP and WHO
- BARCODED CUVETTE
No coding necessary



ProTime3

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