



Unit IV – Problem 2 - Biochemistry: Assessment of Insulin Resistance (Summary)

1) Hyperinsulinemic euglycemic clamp:

- Infusion of insulin and glucose. Measuring glucose in the last 30 min of the test:
 - ≥ 7.5 (insulin-sensitive).
 - ≤ 4 (insulin resistant).

2) HOMA-IR:

- Glucose in mmol/L: (fasting glucose x fasting insulin) \div 22.5
- Conversion from mmol/L to mg/dl: multiply by 18
- >3.5 (insulin resistance)

3) QUICKI:

- $\frac{1}{\log(\text{fasting insulin})} + \frac{1}{\log(\text{fasting glucose})}$
- < 3 (diabetic).

4) HOMA-B:

- Glucose in mg/dl: (glucose x insulin) \div 63