



**Topic 1: Data and Quality of Data**

**Data Information and Knowledge**

**Validation**

**Definition** (i): A computer check to ensure that data entered is reasonable and sensible

**Examples** (⚠️): Range check, Length check, Format check, data type check, presence check

**Verification**

**Definition** (i): Checking that data has been copied correctly from one medium to another.

**Examples** (⚠️): Proof Reading, Double Entry

**Encoding Data**

**Definition** (i): Data that is coded during collection

**Examples of Encoding Data** (⚠️):

- Country of car origin: GB, CH, IRE
- Size of Clothes: S, M, L

**Problems with encoding data?**

- Incorrect decisions being made
- Loss of time correcting mistakes

**Advantages** (✅):

- Less storage space needed
- Easier to back up
- Easily transferred

**Disadvantages** (❌):

- May need training
- Security problems
- Reliance on networks

**Evaluating data**

**Data isn't accurate if...** (💡):

- It's made up
- It's missing

**Data is bias if...** (💡):

- You prompt answers
- It's not a representative example

**Data isn't fit for purpose if...** (💡):

- You have too few items of data
- You don't collect the right data

**Data**

**Definition** (i): Raw facts and figures that are meaningless.

**Example** (⚠️): 9:00, 160/95, 10:00, 155/92, 11:00, 130/90

**Information**

**Definition** (i): Data which has been processed by a computer to give it a meaning.

**Example** (⚠️): Patients blood pressure readings; at 9:00 it was 160/95, at 10:00 it was 155/90 and at 11:00 it was 130/90

**Knowledge**

**Definition** (i): Knowledge is derived from information by applying rules to it.

**Example** (⚠️): The doctor can now apply his knowledge to the results, draw conclusions and take appropriate action