



## PROFESSIONAL DEVELOPMENT

### DATA COLLECTION FORMS

By  
Egyptian Group for Surgical Science and Research  
Nabil Dowidar, EGSSR Moderator  
Ahmed Hazem, EGSSR Secretary General  
Said Rateb  
Mohamed Farid  
Ahmed Hussein

Correspondence to: Nabil Dowidar, Email: nabil\_dowidar@hotmail.com

You need a data collection form to gather your information. In the world of clinical audit, data collection forms are also described as "audit forms" or "audit proformas". The word "questionnaire" is usually reserved for surveys, where patients or staff are being asked questions. Many of the pointers for designing data collection forms apply equally to questionnaires. The term "audit tool" (which often confuses people) is a generic term covering any form or system used to facilitate the audit process.

#### Audit Forms

Most audit forms are designed to collect specific data through which one can assess whether the clinical practice being evaluated meets the standards required. A typical audit form evaluating a certain topic (eg: care of peripheral IV lines) will contain a set of statements or questions related to the standard to be achieved. These statements or questions are to be answered by "yes" or "no" (criterion met or criterion not met) as shown in the table below. A non-applicable response is only appropriate when a criterion could not be achieved because a facility was absent or a practice was not undertaken. A separate column is dedicated for comments for each of the criteria to be written at the time of the audit clearly identifying any issues of concern and areas of good practice. These comments can then be incorporated into the final report.

Audit Form For Care of Peripheral IV Lines					
Standard	Clinical practices will be based on best practice and reflect infection control guidance to reduce the risk of cross infection to patients' whilst providing appropriate protection to staff				
Date:	Ward:		Auditor:		
		Yes	No	N/A*	Comments
1	Insertion of intravascular devices is performed aseptically with hand decontamination undertaken on all occasions				
2	Before insertion of a device the skin is disinfected with a suitable preparation (e.g. alcohol) and is allowed to dry				
3	Cannulae dressings are changed when they become damp, loose or soiled				
4					

\* N/A: Not Applicable

## Questionnaires

Questions may be designed to gather either qualitative or quantitative data. By their very nature, quantitative questions are more exact than qualitative. For example, the word "easy" and "difficult" can mean radically different things to different people. In general, there are two types of questions one can ask, **open format or closed format**.

### Open Format Questions

Open format questions are those that ask for unprompted opinions. In other words, there are no predetermined set of responses, and the participant is free to answer however he chooses. Open format questions are good for soliciting subjective data or when the range of responses is not tightly defined. An obvious advantage is that the variety of responses is wider and thus truly reflects the opinions of the respondents. Open format questions have several disadvantages. First, their very nature requires them to be read individually. There is no way to automatically tabulate or perform statistical analysis on them. They are also open to the influence of the reader, for no two people will interpret an answer in precisely the same way. Finally, open format questions require more thought and time on the part of the respondent.

### Close Format Questions

Closed format questions usually take the form of a multiple-choice question. As a result they are easier for the respondents to answer as they offer them a clear set of responses to choose from. There is no clear consensus on the number of options that should be given in a closed format question. Obviously, there needs to be sufficient choices to fully cover the range of answers but not so many that the distinction between them becomes blurred. Usually this translates into four to seven possible answers per questions.

The number of choices available for each question is important. An odd number of choices allow a neutral or no opinion response which may lead to directive result when analyzing the content of a questionnaire. On the other hand, an even number of choices forces the respondent to get off the no opinion stand point. It is important to mention here that uninterested or bored questionnaire takers tend to over utilize the neutral answer. Therefore, for long questionnaires it may be best to use an even number of choices to prevent large numbers of no-thought neutral answers.

Closed format questions offer many advantages in time and money. By restricting the answer set, it is easy to calculate percentages and other hard statistical data over the whole group or over any subgroup of participants. Modern scanners and computers make it possible to administer, tabulate, and perform preliminary analysis in a matter of days. Closed format questions also make it easier to track opinion over time by administering the same questionnaire to different but similar participant groups at regular intervals. Finally closed format questions allow the researcher to filter out useless or extreme answers that might occur in an open format question.

It is common for a questionnaire to end with an open format question asking the respondents for their opinion on ideas for change or improvement.

### Key points when designing a questionnaire

- Keep the questionnaire concise.
- Make sure you avoid asking 'double-barrelled' questions - e.g. "how would you rate the efficiency and friendliness of staff?"
- Avoid leading questions - the way you phrase questions must not suggest an answer: "Waiting times in outpatients are very good, aren't they?" (!)
- Your questions should have internal validity. In essence, are the questions you're asking really measure the thing you think they're measuring, or are they measuring something else.
- Your questions should also be reliable. This means that if you repeated the questionnaire on another day in a different setting, with another group of similar people, would the results be broadly the same?

## Examples of scales for closed format question responses

### Categorical

Doctors carry a heavy responsibility.

Agree \_\_\_ Disagree \_\_\_

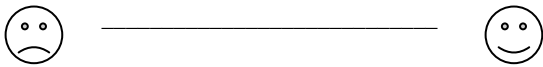
### Continuous

Outpatient services are adequate.

Strongly	Agree	Mildly	Mildly	Disagree	Strongly
Agree		agree	disagree		disagree
—	—	—	—	—	—

### Visual scales

How satisfied are you with the outpatient services?



*Place a mark on the line which represents your answer to the question.*

### Always pilot your data collection form

Piloting your tool on a few cases is important before undertaking any audit. It will help you iron out any problems: were your instructions and questions clear? (If others are collecting the data); could you get the data you needed? (Try analyzing your pilot data against your standards). Now is the time to put right any problems so that when you do your audit proper, you end up with the right information, rather than a lot of unusable data.