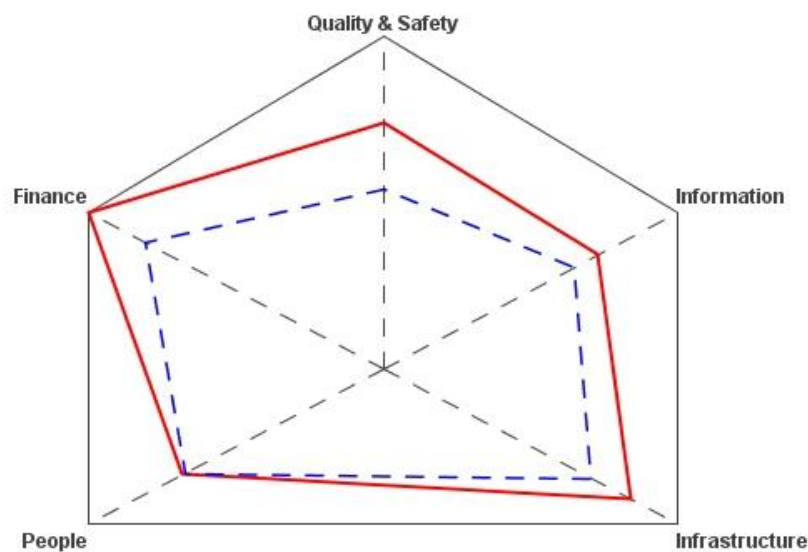


visotool[®]



A server-based application for:

- *controlling key processes,*
- *data-entry,*
- *administration of indicators,*
- *online processing of feedback and benchmarks*
- *encouragement of quality improvement*

within the European Practice Assessment (EPA)

AQUA – Institut für angewandte Qualitätsförderung und Forschung im Gesundheitswesen GmbH, Maschmühlenweg 8-10, 37073 Göttingen

1. What is Visotool?

Visotool is an innovative software for quality management and benchmarking in office-based health care. It integrates the whole process of the European Practice Assessment (EPA): registration of practices, shipping of letters and questionnaires, data entry, organisation of the practice-visit, analysis and immediate feedback of results. It was programmed on one hand to stabilise and optimise this process and on the other hand to add quality improvement tools - such as: feedback on the day of practice-visit in the context of a team meeting, access to a benchmark database for practices (to get actual benchmarks even later on), further information and materials, what to do with the results (e.g. propose how to develop a poster based on the results of the patient questionnaire) - that would be difficult to achieve without such an instrument.

Technically speaking, Visotool is a server-application consisting of an object oriented database and a Java front end. Clients connect to Visotool via an internet-browser and get access via username and password-identification. Access rights depend on the location (intranet or internet) and the user group you belong to. Participating practices, for example, receive a password giving them rights to see their own results and anonymous benchmarks or mean values from other practices via internet. The practice name is aliased, so that even with a loss of the password no conclusion can be drawn to an individual practice. Additionally, via internet access, a secure SSL connection is established.

The features of Visotool can be arranged into the following categories: controlling key processes of EPA, data-entry, administration of indicators, processing feedback and benchmarks, and encouragement of quality improvement. These categories will be explained below. Due to the limited space of this brochure, only general concepts can be explained. Please get in contact with us for further information.

2. Controlling key processes of EPA

In Table 1 the key processes of EPA are shown. These processes are supported by Visotool, e.g. by production of documents (letters, questionnaires). Additionally, the software gives an overview of the whole process (e.g. is the date for the practice visit already arranged?) and any arising problems (e.g. date for practice visit will be next week, but there is a delay in return of patient questionnaires).

Key process	Support by Visotool
Registration	Data-entry forms. If applicable, assigning participating practices to specific groups (e.g. practice networks or regions). These groups can also compare among each other later on.
Date arrangement for practice visit	Allocation of a Visitor to a practice, supporting the date arrangement (letters, faxes for date confirmation)
Shipping of questionnaires	Printout of questionnaires on basis of current EPA-Indicators and, if applicable, additional national indicators. Printout of letters
Data Entry	Alternatively import (as txt-files) or direct entry in online forms
Preparation of the practice visit	Check if data return of questionnaires is sufficient. Shipping of documents for the visitor (letter, observer checklist, observer interview, preliminary results on basis of available data so far)
Practice visit	Online data entry of observer checklist and observer interview by visitor. Calculation of results for feedback (practice team meeting)
Conclusion of the EPA process	Shipping of password for benchmark-database to the practice and shipping of printed out summary of the results.

Table.1: Key processes of EPA and given support by Visotool

3. Data entry

All data raised during the EPA-process are stored in the object oriented database of Visotool. Data entry is done by filling out appropriate forms or via the import of data. The structure of imported data (number and sequence of the expected data records) is defined by the current indicator the database uses. The correct structure of the data records and the plausibility of values (comparison with the assigned scales) are examined automatically during the import.

All questionnaires made by Visotool have an unique identifier (alias of practice + number (for patient questionnaire)) or a random number (staff questionnaires). This prevents double input of data. First, all patient and staff questionnaires are processed automatically at AQUA-Institute, and then they get imported to Visotool.

Observer checklist and observer interview are entered at the day of the practice visit. This is done by the visitor using online data entry forms. These forms are XML-documents with links to the current indicator, database and scales. After the visitor has finished data entry, all necessary information for feedback is immediately in the database. The visitor confirms the complete input of the data, whereupon the calculations for this practice starts (duration: approx. 2-3 minutes).

Altogether the selected procedures reduce possible sources of error to a minimum. This is shown in the past experiences.

4. Administration of indicators

In further processes of the development of EPA, new versions of the European indicators will appear. Beyond that, if you consider national/regional specialties, it is usually helpful to add specific national indicators to the European indicator set within each country. Both factors lead to the consequence that parts of the indicator set will change continuously over time.

Visotool considers these factors by providing a flexible structure for dealing with different versions. One feature of this structure is that similar items among different versions are treated as one, so that all data captured for these items in different versions can be used for feedback.

5. Processing feedback and benchmarking

Direct and immediate Feedback is a key feature of Visotool and it was the main motivation for programming this tool in the past. This gives the practice team the chance to receive feedback and to compare to other practices and benchmarks by using the visitor as a facilitator in a team meeting on the same day. There is evidence that this approach is much more effective than sending out written feedback reports without support. It is also cost-effective because a second visit or meeting is not necessary. Practices are encouraged to access and use the database according to their own needs later on.

The basic structure of feedback given in Visotool is referring to the domain-model of EPA. Considering the amount of items and indicators, one aim is to give a good overview and orientation within the results. This is done by starting at the most aggregate level of the EPA-Model (domains). On the title of this brochure you see the five domains of EPA lined up in a radar-chart. The continuous line (red) and a dashed line (blue) represent the results of all indicators for an individual practice (red) and the mean results of all practices (blue). The closer the lines are to the domain names, the better the results are. In order

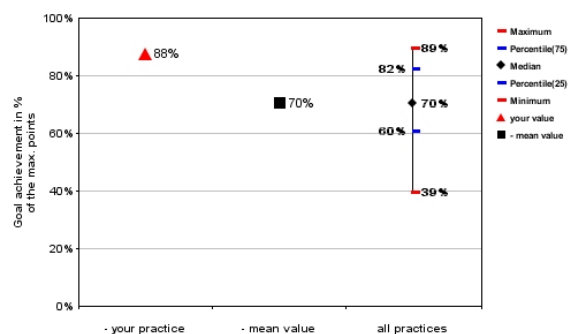


Figure.1: Variance chart

The closer the lines are to the domain names, the better the results are. In order

to be able to depict results on this aggregate level, all items were transferred into degrees of goal achievement between 0% and 100% (e.g.: yes = 100% and no = 0% goal achievement for a specific item).

Starting from the radar-chart users have the possibility to change the comparison group or benchmark values and to look at the results in detail. Figure 1 shows as an example a variance chart on the level of a dimension (here: accessibility and availability).

Figure 2 gives another example for feedback. You see the results of all dimensions within the domain infrastructure compared to the mean. The button “graphic” leads you to variance charts for these results and the button in the last column “indicators” leads you to the results of indicators in that division.






















No.	Dimension	Results in %		Details		
		Your value	Mean value	Graph	To-Do	Indicators
▲▼	▲▼	▲▼	▲▼			
1	Accessibility and availability	74%	65%			
2	Disabled access	100%	72%			
3	Premises	75%	74%			
4	Non medical equipment	100%	79%			
5	IT-security	89%	75%			
6	Medical equipment including drugs	95%	74%			
	Total	87%	73%			

Figure 2: Example for feedback on the level of EPA - dimensions

6. Encouragement of quality improvement

In figure 2 you also see a button called “to do”. This gives the practice the opportunity to specify individual goals or actions for this dimension or indicator. Within the to-do list, a practice is able to specify what it wants to do, until when and who is responsible for this action.

The to-do list is an example for further tools implemented in Visotool in order to encourage quality improvement according to the individual needs of practices. All these tools lead to concrete work on specific tasks (represented by the dimensions or indicators) e.g. by means of links to literature, proposals on how to work with given results or more detailed information on the indicators themselves.

Through all the tools given to the practice, it becomes obvious that there is a lot of help in going through a quality improvement cycle using EPA and Visotool.

7. Availability

Visotool was developed by AQUA at our own costs and risks over a period of two years. It now is available at reasonable costs to other organisations in Europe who want to implement EPA in their country and want to share their experiences within the TOPAS-Europe collaboration.

Address for further information

AQUA – Institute on Applied Quality Improvement and Research in Health Care

Mrs. Sara Willms

Maschmühlenweg 8-10

37073 Göttingen

Germany

Tel.: 0551 – 789 52 0

Internet: www.aqua-institut.de

E-Mail: s.willms@aqua-institut.de