

Blood acid-base status can be an important diagnostic tool, and the required data are usually reported in blood analyses. However, understanding of acid-base status is poor leading to possible misinterpretations. In particular, the term 'Bicarbonate' needs elucidation.

AcidBE shows, step by step, how a correct evaluation works, both as a learning tool and for evaluating supplied data. The Introduction screen is shown below, in Fig.1.

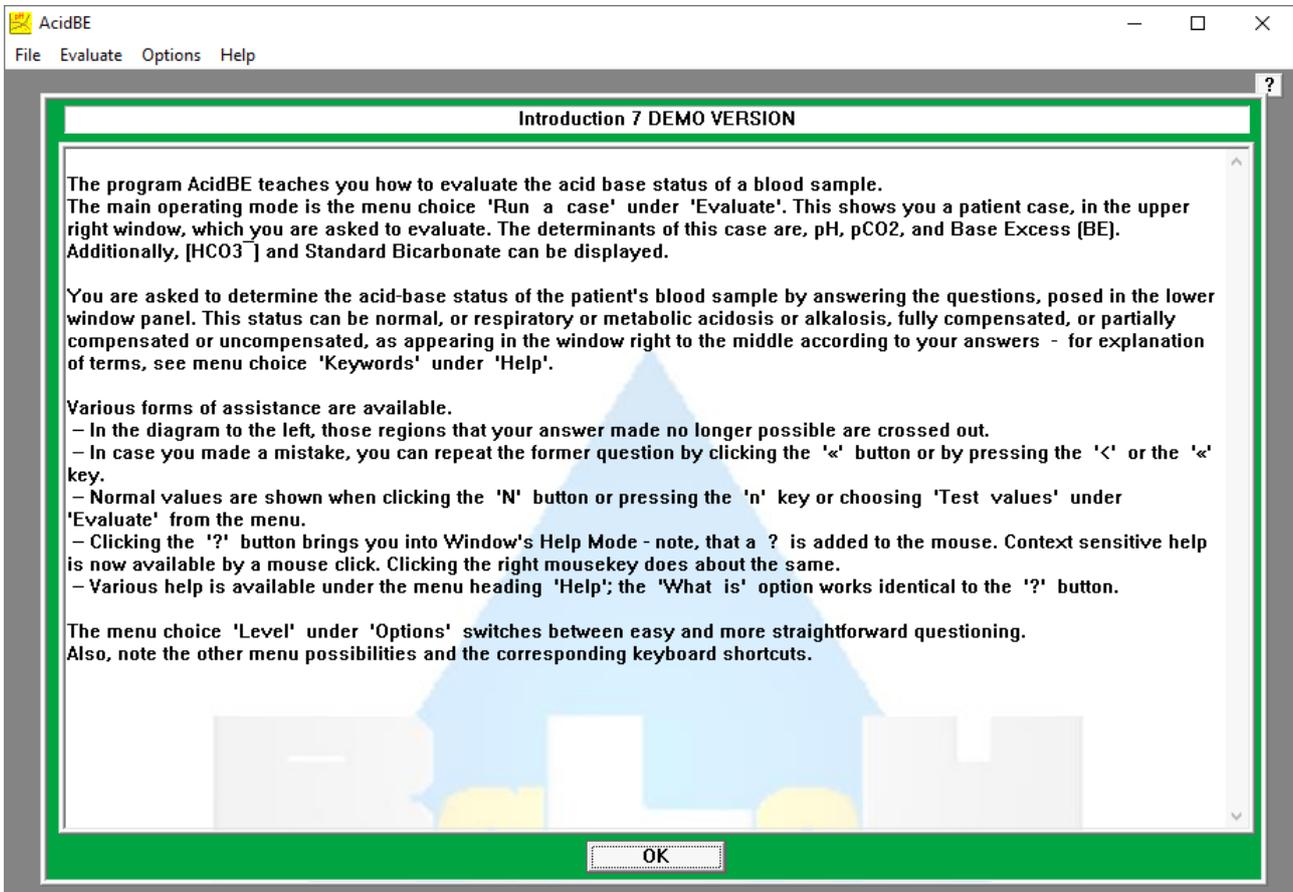


Fig.1: Introduction screen of AcidBE.

Fig. 2 shows the menu entries of AcidBE. For teaching purposes, the entry 'Run a case' is most applicable. The program will create a more or less random case of an imaginary patient and show the blood analysis data alongside a diagram of a type that can be chosen previously from the menu entry 'Diagram'. Note, that the 'Help' entries other than 'Introduction' need a tool that runs .hlp files such as winhelp32.exe, and that there is only limited help in the DEMO version. The fully operational version comes with a separate file to access help outside the program.

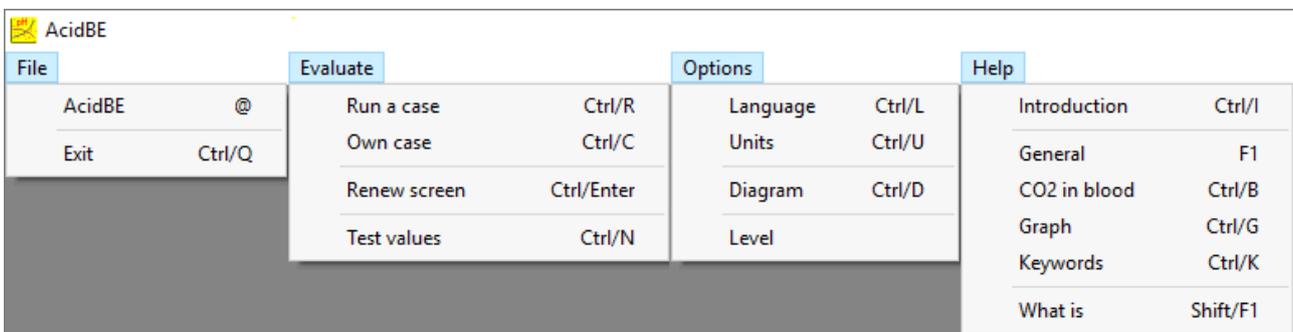


Fig. 2: Menu options of AcidBE.

The starting screen is shown in Fig. 3 and the result after evaluation in Fig. 4.

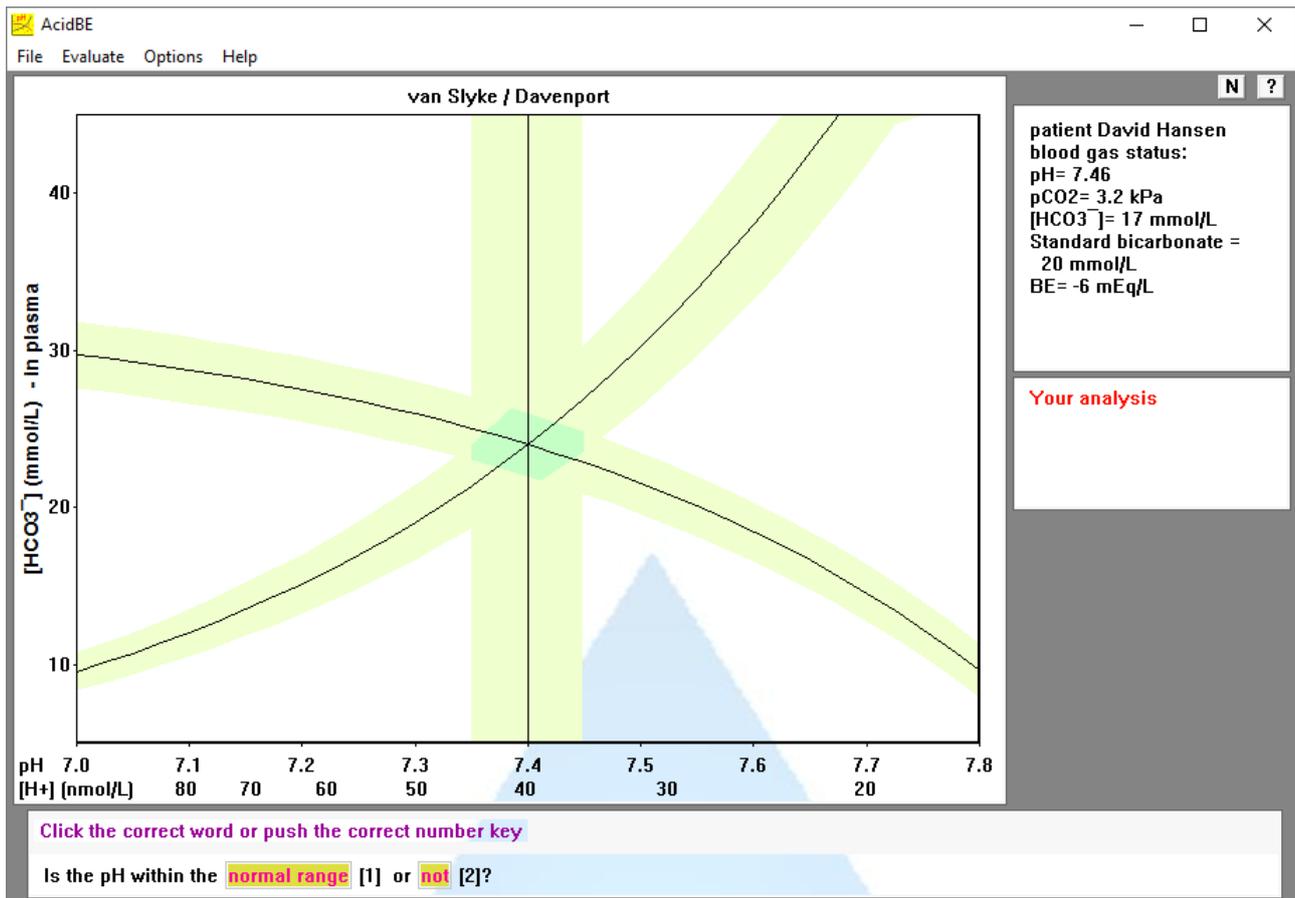


Fig. 3: Starting screen for a random case.

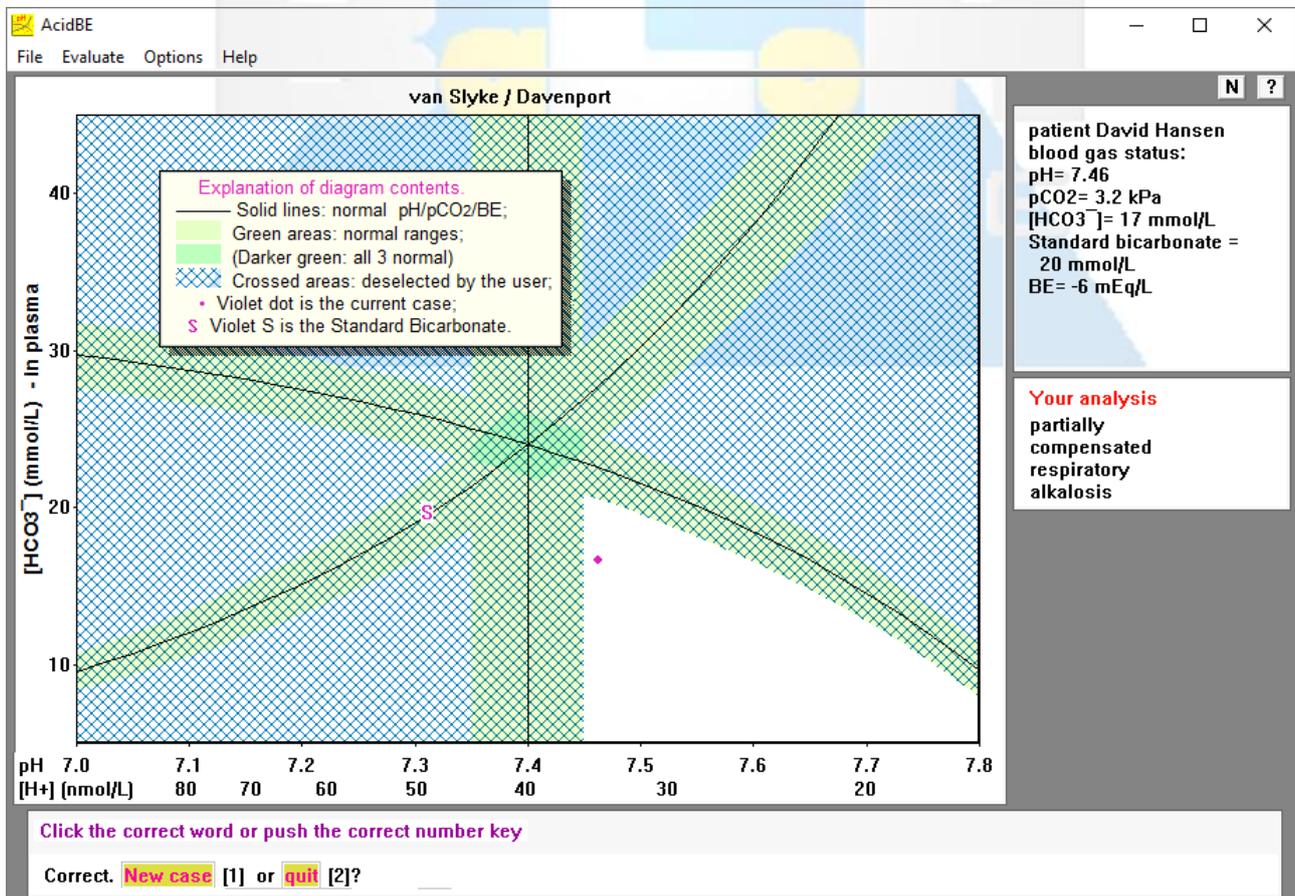


Fig. 4: Screen after evaluation of the case.

The evaluation is stepwise through questions posed at the lower side of the screen. After each step, that part of the diagram that is no longer applicable is crossed out. After the last step, the data is represented in the diagram. If the analysis was incorrect, there is an 'explanation' choice that shows why, also stepwise.

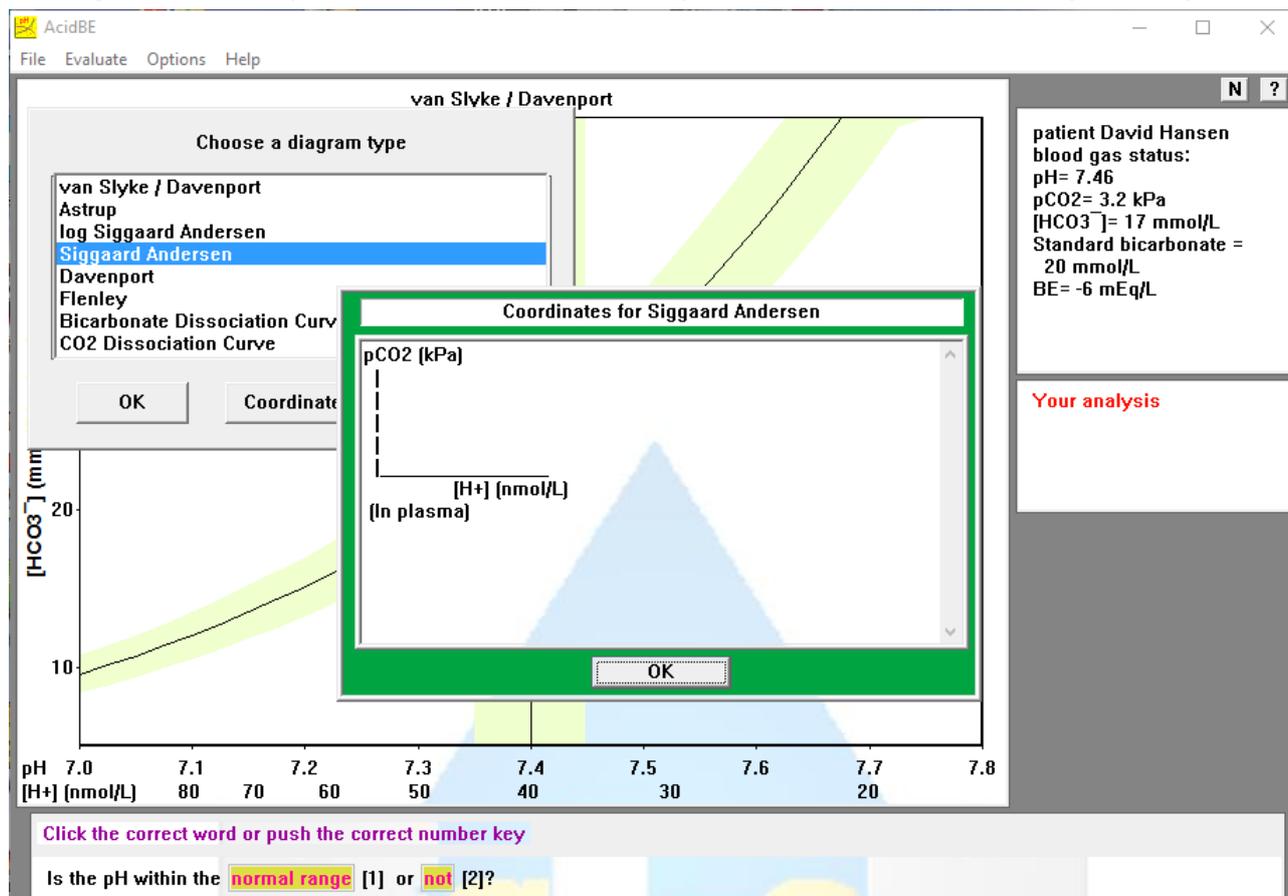


Fig. 5: Diagram types.

Graphical data of acid-base status can be in various form. AcidBE covers all the common representations and also representation as dissociation curve for comparison with oxygen dissociation curves. The diagram type choice is shown in Fig. 5 together with a window showing the respective diagram coordinates.

AcidBE's Help (F1) covers a complete treatment of the chemical processes and how these translate into the various blood parameters and the corresponding graphical representations. The starting screen is shown in Fig. 6.

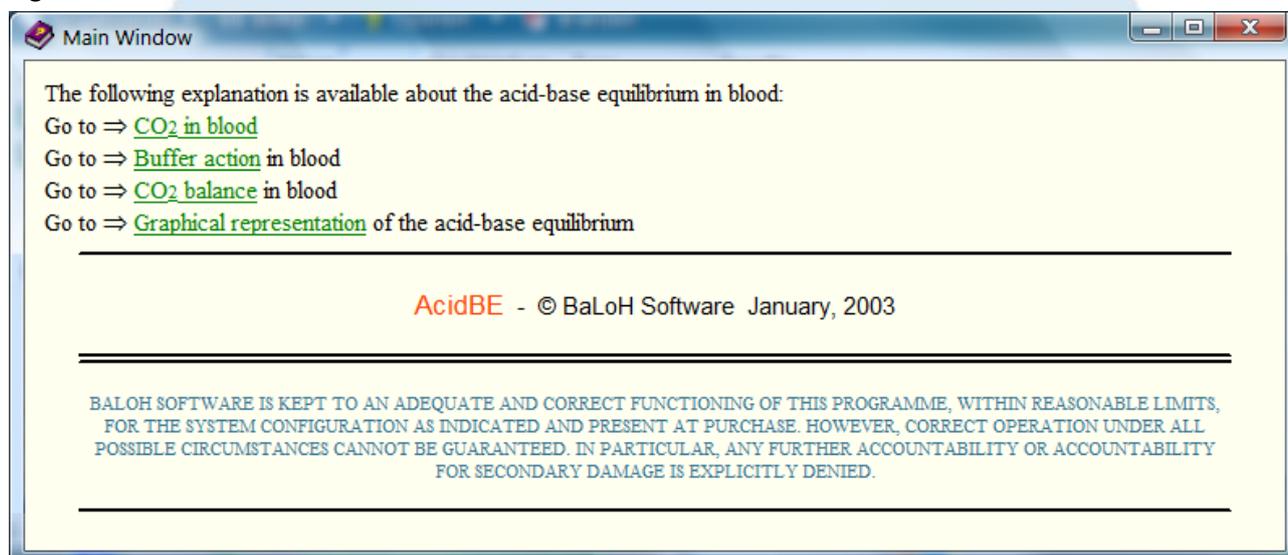


Fig. 6: Starting screen of the Help section.