

## The others

# Textbook of anesthesia on electronic media: trial version as a free software

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**Abstract:** The author has compiled a textbook of anesthesia on a floppy diskette and has made it available as free software. It is called "KSAP", which stands for "Knowledge Source for Anesthesia Practice". He aims to create a new form of textbook that is appropriate for current technology. This proposal is intended as sample in trial form. The advantages of this format are easy storage and easy use on personal computers, excellent portability and search ability, facilitation of revisions, and easy distribution. The amount of information in this text is slightly more than one megabyte. The entire book consists of approximately 500 text files, all of which were written by this author. All that is required to use this textbook is an MS-DOS computer and software which reads ASCII text files. Individual files are all simple text files.

**Key words:** Electronic textbook, Computer, Floppy diskette, Technology, Text file

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### Introduction

With the advent of computer technology, the possibility has arisen of producing a textbook on electronic media. With his experience using computers in writing [1], this author decided to compile sample of his own.

The information contained in the textbook was collected from a variety of sources [1]. There are several advantages to using electronic media for a textbook:

1. It can be used easily on personal computers.
2. It has excellent portability and search ability.
3. It may be revised and updated more easily.
4. It can be distributed at a minimal cost.

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### Methods

#### Sources

The information in this textbook was compiled from several sources of this author's original material including:

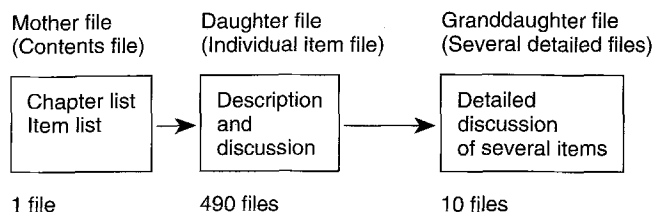
1. Manuscripts written with the intention of inclusion in a textbook
2. Manuscripts already published as a review for a journal or as a chapter of a book
3. Memos written during daily practice of anesthesia and pain management
4. Memos written and uploaded to computer networks
5. Manuscripts newly written or assembled

All of these were revised or modified to some degree to meet the requirements of this publication.

The textbook contains several tables but no figures.

#### Structure

A contents file is included which lists various chapter titles and items; it is termed the "mother" file. On the same line, the name of the corresponding "daughter" file appears so that it can be opened instantaneously, using the "tag jump" function (Fig. 1). Each individual item consists of a single file. The length of the individual file is generally one to two pages on an ordinary computer screen (similar to the size of VGA). When a text becomes considerably longer than this standard size, it is divided into multiple files. Occasionally, such a "combination" structure was used (see Results and Figure). The writing is aimed at concise and clear descriptions of information. The entire textbook is made up of 19 chapters and, on the electronic media, of 15 sub-directories; the chapters and sub-directories do not necessarily correspond to each other. Any computer using the MS-DOS operating system can be used. To



**Fig. 1.** Structure of the file system. A contents file (“mother” file) lists the names of chapters and individual items. The name of the “daughter” file appears on the same line as the individual item listed. Using the “tag jump” function of editor software, the daughter file may be opened instantaneously. A similar arrangement is made between several daughter files and their respective “grand daughter” files

read these files, it is best to use a text editor program which has the tag jump function.

## Results

### *Amount of information*

As of this writing, the latest version of the textbook contains slightly more than one megabyte (MB) of data. The text is written almost exclusively in Japanese. The number of items (files) is slightly more than 500. The amount of information contained is similar to that of a single volume, medium-sized textbook.

### *Use*

Either a text editor or word processor program is required which reads text file on a computer. A program with the tag jump function is advisable because the latter can take full advantage of the internal cross-linking structure of the files. This is not mandatory, however. Individual files are all simple ASCII text files and can be opened using various programs. Some knowledge of the MS-DOS operating system is advisable, though not a prerequisite. For example, reassigning of the drive or changing directories on the text may be necessary depending on the system setup of the individual user.

### *Combination files*

Several items (files) which ended up with a very detailed description or discussion are not displayed in the contents file. Only a smaller “guide” file is included in the contents file; the bigger, more detailed file is given as a reference to this guide file. In other words, a few items are made of a combination of two files, a concise short file (daughter file) and a longer, more detailed description of this shorter file (“grand daughter” file). This

longer file can be accessed only through the corresponding daughter file (Fig. 1).

### *Free software*

For the 40th Annual Meeting of the Japan Society of Anesthesiology held in April, 1993, an announcement was made that this textbook on electronic media was available for free distribution and use (as free software). It is provided as a compressed file, and in this condensed form, using the LHA archiver, it occupies slightly more than 500 kilobytes (KB).

## Discussion

This textbook was compiled with emphasis on the logical presentation of the data rather than on providing massive amounts of information.

### *Software*

This textbook is intended to be used on a text editor program. Word processing programs can be used, but are not recommended.

The author seriously considered using various hypertext programs. They allow the entire text to be searched as a single file, thus facilitating revisions and updating of the contents. This plan was abandoned, however, because it would have restricted the text to a particular program. Several good hypertext programs are available, yet virtually none of them are as widely distributed as many common word processing or text editor programs.

The hypertext format will be reconsidered if a program becomes available that is both inexpensive and acceptable universally.

### *Copyright*

Under Japanese law, abandoning a copyright is a long and difficult process, requiring a special procedure. Therefore, while the author legally retains the copyright, he has no intention of ever enforcing it. All users are permitted to modify the contents in any way to suit their own needs. Such modified versions should not be distributed without the permission of this author. The original version may be distributed by anybody. This is quite different from ordinary printed books.

### *Future hopes*

This electronic textbook is made available on a trial basis with the ultimate intention of continually adding to it until it becomes a more detailed, advanced text-

book. The aim of preparing such a textbook is to make current information available in the field of anesthesiology easily and inexpensively in order to facilitate the spread of knowledge and improve the standard of care available. No restrictions may be placed on its distribution and no fee may be charged. To do so would defeat the purpose for which this textbook was compiled.

As of April, 1993, the entire textbook can be copied to one floppy diskette without compressing the files. For this textbook to be really useful, however, it may grow to several times its current size, on the order of 10 MB.

In the long run, we may even aim at using a CD-ROM with its capacity of 500 MB. With CD-ROMs, various figures or even animated illustrations may possibly be included.

### Reference

1. Suwa K (1991) Experience in using personal computers in writing and publishing books (in Japanese, with English abstract). *Jpn J Anesth* 40:506-510