

LIFE AND DEATH DOCUMENTATION

BY THE JET

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MEMO

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TO:All First-Year Neurosurgical Residents

FM:Dr. Ryan Skelton, Chief of Neurosurgery

RE :Welcome

Welcome to the Neurosurgery Wing. As Chief of Neurosurgery , it is my job to help you learn the intricacies of this demanding profession and at the same time safeguard the lives of our patients. While I know that you're all anxious to get started, I would like you to take the time to read the following orientation materials as well as the "Operating Procedures Manual." Remember, brain surgery is not a skill to be taken lightly. That is why only the cream of the surgical crop, like yourself, are able to join this elite group.

During normal operating hours you can find me in the classroom where I give lectures on diagnosis and surgical techniques. If you have problems I will be more than happy to respond to them there. Once again, welcome to the Neurosurgery Wing of Toolworks General.

Welcome to Toolworks General

We know that the first few days as a neurosurgical resident can be difficult, so we have put together this orientation handout. Use it to familiarize yourself with the layout of the Neurosurgery Wing and the procedures you will be expected to follow. Refer to the " Operating procedures Manual " (enclosed) in any instances that you feel more specific instructions are required. Good luck!

Your Responsibilities

You will be working in our brand new Neurosurgery Wing: a modern, fully-equipped medical unit with its own personnel staffing, record keeping, diagnostic facilities and classroom. As you are aware, your job is to diagnose patients (after ordering the necessary tests), prescribe treatments or drugs and - when appropriate - operate.

In short, you have all the privileges and responsibilities of any

other surgeon in the hospital. About the only difference is that Dr. Skelton will be tracking your progress and offering guidance when needed.

SIGNING IN

Upon arrival at the start of your shift you will be required to sign in before cases can be assigned. The receptionist, Edith Macdonald, will then keep track of your records, make sure you receive any messages and let you know if you have patients waiting. Edith can also answer any questions you might have in case you get lost or don't know what to do. You can find her at her station in the center of the Neurosurgery Wing.

HOSPITAL PAGING SYSTEM

At various times during the day you will find yourself addressed by the loudspeaker system. Pay attention to because this tells you where you should be at any given time. It isn't a good idea to keep your patients or Dr. Skelton waiting for very long.

The Floor Plan

Aside from the receptionist's station there are several other rooms you should become familiar with.

Along the back corridor of the neurosurgery wing you will find the morgue, the CAT scanner, the MRI scanner, the x-ray lab and the angiograph lab. The technicians monitoring the diagnostic equipment will be happy to show you samples of what their machines can do. In the morgue, you can study past mistakes. Along the middle corridor you will find the patient rooms at one end and the Chief Neurosurgeon's office and your office at the other end. You should familiarize yourself with the items in the Neurology textbook.

At the west side of the Neurosurgery Wing you will find the operating theater and the classroom. For now, just note how to get to the operating theater so that you can find it when you need to operate. You should explore the classroom and take some of the beginning courses just to brush up a bit on diagnostic techniques. They may come in handy.

At the east side of the Neurosurgery Wing you will find the cafeteria. Here you can stop for coffee or a nutritious snack and perhaps talk to some of the staff.

Patient Rooms

The number doors in the middle corridor lead to patients' rooms while on duty, you are the attending physician for all patients in the Neurosurgery wing. It is your responsibility to look in on patients and check their progress. An up-to-date medical history for each patient may be found on the clipboard at the head of the patient's bed. If you feel additional tests, medication or surgical prep is indicated, mark the appropriate action on the clipboard. See the "Operating Procedures Manual" for more specific instructions on surgery as well as ordering medication and tests.

Your Office

Your office, located at the far east end of the middle corridor, is where you go to select staff or bone up on the basics of neurology. The staff folder and neurology text are located on your desk within easy reach. You can also peruse and make changes to the Hospital Guidelines and Policies clipboard. A second copy of the guidelines on policies is located at the receptionist's station.

We recommend that you spend some time studying the profiles of the staff before choosing your operating team. You will find that, while each staff member is skilled and competent, all have slightly different educational backgrounds, experience and personalities. It may take some time to discover the best combination of talent and personality to assist you in the operating theater.

The Operating Theater

At the west end of the hospital just behind the classroom is the operating theater. After surgical prep is ordered, the patient will be brought to the operating room (or OR) when ready.

Requirements

True compatibles running DOS2.0 or later.

A minimum 640k of memory and an

EGA, VGA or Tandy graphics adapter

Life & Death II is a game for fun, not education. Nothing that appears in or on the package, manual or the software program is in any way intended to be a statement or representation of fact or of medical opinion applicable to any situation other than the playing of the computer game. No representation or warranty is made that any statement, diagram or image is accurate as a fact or valid as an opinion concerning any anatomical, medical, surgical or health matter. UNDER NO CIRCUMSTANCES should any person rely upon or be influenced by these materials in making any health-related decision. You, of course, should consult qualified medical personnel whenever you have any questions or problems concerning health or medical matters.

A mouse is strongly recommended, but not required. Joysticks are also supported. * A hard disk is recommended but not required. "EMS and XMS expanded memory systems are supported. * Ad Lib, CMS sound blaster cards, and RealSound'" are supported.

Installation

The Life & Death II package comes with 5.25" diskettes or 3.5" diskettes provided with the game before you can play Life & Death II. To start the installation program, insert the disk labelled Disk 1 (either 3.5" or 5.25") into the floppy drive of your choice and log to that drive. For example, if the floppy drive is drive A, just type:
and press the ENTER key.

Now start the install program by typing

INSTALL

and pressing the ENTER key.

Follow the instructions given by the installation program to install Life & Death II. After installing the program, put your original diskettes away for safekeeping. You will not need them to play the game since Life & Death II is no copy-protected.

Running the Program

After the game has been successfully installed, the installation program will give you instructions on how to start Life & Death II. Follow these instructions whenever you wish to play the game.

In general this will require you to insert the Life & Death II startup disk (for floppy disk based users) or change to the directory where you have it installed and type

LD2

Then press the ENTER key.

If you have installed Life & Death II onto floppy diskettes you will be asked to insert different diskettes at various times during the game. If the program cannot

find a file it's looking for, you will get a prompt such as:
"Please insert play disk 2 in drive A:
Press a key when ready..."

If you have two floppy drives the program will take advantage of that fact, as long as installation program to install they can use the same type of diskette. If you are running from a hard disk, of course, you will not have to swap disks.

You may use Life & Death II with or without a mouse or joystick, although the mouse is highly recommended. To move the cursor icon with the keyboard, use the numeric keypad. Use the 8,2,4 and 6 keys to move up, down, left and right respectively. Use the 7,9,1 and 3 keys to move left, up and right, down and right respectively. You may use the shift key in combination with the above keys to temporarily increase the speed of cursor movement. The ENTER key, the INS key and the '+' key on the numeric keypad all act like the left mouse button

The DEL key on the numeric keypad acts like the right mouse button.

With the joystick, the cursor moves in the direction in which you point the stick. Button 1 on the joystick is the same as the

left mouse button while button 2 is the same as the right mouse

button.

Keyboard and joystick users should spend some time becoming familiar with the way these input devices operate. Most of the documentation and on-line help information refers to the left and right mouse buttons. Users with three button mice should use the far right mouse button instead of the center button when the right mouse button is called for.

Definition of Terms

Throughout this manual, terminology native to mouse devices will be used.

The cursor marks a location on the screen with a pointer arrow or other meaning icon. The cursor location can be changed by pressing directional arrow keys on the keypad, moving the joystick or sliding the mouse. The location of the cursor represents the area where you may begin an action.

Once the cursor has been moved into position, the left button is used to activate "an object or begin a process. Press and release the left button or its equivalent while the cursor is over the object you wish to activate. This procedure is called clicking

At times you will need to double-click the left button to initiate some procedure. Double-clicking consists of clicking the mouse button twice in rapid succession.

Dragging is much like clicking. While over an object press the left button but do not release it. Instead, move the cursor to a new position on the screen, then release the left button. This will have dragged the object to a new position

During an operation, the cursor will be represented by a small hand. This miniature image is called an icon. The small hand icon symbolizes an empty hand. The icon may be changed by clicking on an item. If, for example, you were to move the hand icon over the image of the scalpel and press the button, the cursor icon would change from the hand to the scalpel, symbolizing grasping the scalpel. If you click the cursor on an empty area of the tray while you have the scalpel in your hand, the cursor will change to the hand, symbolizing dropping the scalpel.

Signing IN

Before you can be assigned any patients, you must inform the hospital staff that you have arrived. When the program starts you will be presented with the sign-in clipboard. If you are a new doctor, click on an empty line, enter your name

and press the ENTER key. If you are a returning doctor, just click on your name. Once you have signed in, the program will remember everything about you even if you leave the hospital and come back

to play another time.

Moving Around the Hospital

After signing in, you will see an elevated Floor plan of the Neurosurgery Wing. To move around the wing, use your mouse, Keyboard or joystick. To enter a room, just click on it. To leave, just press the EXIT button or click on the door (if it's visible.) To pick up an object, such as the clipboard, just click on it. To put a clipboard down, move the mouse icon off the clipboard and click. While viewing lessons in the classroom, click on the projection screen to tell the instructor to put up the next lesson. To leave the hospital, just click on the parking lot in back of the Neurosurgery Wing or hit ESCAPE. Feel free to explore all of the rooms and objects in the Neurosurgery Wing.

Getting Help

The receptionist is located at her station in the center of the Neurosurgery Wing. To

talk to the receptionist, just go there by clicking on the station. She will be able to answer a variety of questions about how to get around the hospital and what to do there. When you see the receptionist, she will tell you what you should be doing at this time. To ask a question, simply click once anywhere on the screen (except the exit button.) You will then see a list of questions you can ask her. Double click on the question you want to ask her or change the selected item using the up and down arrow keys and hit the ENTER key to ask the highlighted question.

Medical School and On-Line Lessons

Whenever the Chief Neurosurgeon feels that you need schooling, you will be instructed to report to the classroom. Most of the lessons are projected on the view screen in the classroom along with pertinent visual aids. You can also go to the classroom at any other time to take classes in diagnostic procedures, identifying various disorders and operation procedures. When you go into the classroom then, you will be presented with a menu of class topics. To select a topic, just double-click on the item you want, or use the up and down arrows to select a topic and hit the button to pick it up. To get a description: Instructs a staff member to inject of an instrument, click on the instrument the patient with lidocaine. with the right mouse button. Use the tips of the fingers to point to what you want: Instructs a staff member to inject to pick up. The icon will change to a rep-the patient with atropine. presentation of the instrument you are currently holding. To put an instrument down, click anywhere on the operating tray. To use an instrument, move the icon to the appropriate place and click. For some instruments, such as the scalpel, sponge and iodine, you must click and drag the mouse to use them properly.on

Several useful items are kept in the drawers above the main instrument tray. To open a drawer, just put down any instrument you may be holding and click on the drawer handle with your hand.

Use The same procedure to close the drawer.
While in surgery, the following keys are active:

S: Turns sound on and off

E: Turns just the EKG beep on and off

P: Pauses the game. To resume the game, press any key or click the mouse button

If you are performing surgery without a mouse or joystick, two additional keys are active:

L: Instructs a staff member to inject the patient with lidocaine

A: Instructs a staff member to inject the patient with atropine

Hospital Policies and Guidelines

The Hospital Policies and Guidelines clipboard is used to set the Life & Death II game parameters. The clipboard is located at both the receptionist's station and on top of the desk in your office. To select or unselect an option on the policies clipboard, place a check mark (or remove the check mark) in the appropriate box by clicking with the mouse.

"Allow Digital Sounds" enables the digitized sound effects used throughout the game.

"Allow Music" enables the music which plays in certain areas of the hospital.

There are three play levels available: Novice, Intermediate and Advanced. Each new surgeon starts at the novice level. If you would like a more challenging game, choose the intermediate or advanced play level. At the more difficult levels, you will encounter abnormal EKG patterns, high pCO₂ levels and low urine output more often. The comments from staff members will also be less helpful.

ENTER key. You can click on the arrow buttons to the right of the screen or use the PgUp and PgDn keys to view all of the topics available.

Diagnosing a Patient

To diagnose a patient, you should first read the patient's chart. The chart can be found on the clipboard at the head of the patient's bed. Click on the clipboard to pick it up. To put the clipboard down, move the pointer off the clipboard and click. To perform a physical examination of the patient, click on the patient's head, torso or legs. Each area of the body has its own specific set of tests that must be performed for a full neurological examination. Each area will also have a set of tools used to perform the necessary tests. (See the on-line lesson titled "General Diagnostic Procedures" for detailed information about how

to perform the physical examination.) Once you have performed the physical examination, you may need to use some of the more advanced medical imaging equipment available in the Neurosurgery Wing. To do so, click on the clipboard at the head of the patient's bed, click on the check box selecting the type of imaging you want performed (MRI scan, CAT

scan, skull x-ray or angiogram) and click in the initials box to initial your order. When you have decided what's wrong with your patient, click on the check box titled, "Prescribe Treatment." At that

point you will be given a check-list of possible treatments. Click on the box next to the one you feel will effect a cure then click in the initials box to initial your orders. The staff will then carry out your wishes, for good or ill.

Selecting the Operating

The personnel records can be found on the desk in your office. To select your operating team, go to your office, click on the desk and click on the folder on the left side of the desk. There are six available staff members, two of whom may be chosen for the operating team. To select a staff member, put a check mark in the box next to the name. To get more detailed information on a staff member, click near the staff member's name (but not in the check box). You will be presented with the staff member's photo and profile. surgery When you first start operating, the mouse icon will be in the shape of a hand. Click on an instrument with the left mouse

For those surgeons who desire a challenge of nightmarish proportions, "Nightmare Mode" is available. Just click the appropriate box.

If you have already signed in, you may enter your initials in the box provided at the bottom of the policies clipboard. Click and drag the mouse to draw. Use the "Erase" box to erase the initials and start over.