Separate macro-annotation explains the micro-detail of hospital costs in this 26-day narrative of one person passing through an intensive care unit. The design is transparent to the disturbing information, as a layered polyphony of voices—time sequence, accounting data, commentary weave together to trace out days, hours, minutes, dollars.

Redrawn from David Hellerstein, "The Slow, Costly Death of Mrs. K____," Harper's, 268 (March 1984), 84-89.

Mrs. K _____ has been taken to the emergency room of a renowned hospital on Manhattan's Upper East Side. The doctors "work her up." More than \$200 worth of blood tests are ordered ("emer rm lab," "lab serology out"), \$232 worth of X-rays taken, \$97.50 worth of drugs administered. I never saw Mrs. K _____, she wasn't in my hospital, I don't know her medical history. But I am a doctor, and can reconstruct from her hospital bill what is going on, more or less. She is sick, very sick.

Mrs. K ____ has been moved to the Intensive Care Unit ("room ICU"). It costs \$500 a day to stay in the ICU, base rate. California has the highest average ICU rates in the country: \$632 a day. In Mississippi, the average is \$265. ICUs were developed in the 1960s. They provide technological life-support systems and allow for extraordinary patient monitoring. An inhalation blood-gas monitor ("inhal blood gas mont") is being used to keep a close check on the amount of oxygen in her blood. Without the attention she is receiving in the ICU, Mrs. K _____ might already be dead.

Mrs. K ____ has been running a high fever. The doctors have sent cultures of her blood, urine, and sputum to the lab to find out why. She is put on gentamicin ("lab gentamycin troug"), a powerful antibiotic. Such strong drugs can have toxic side effects. Gentamicin kills bacteria, but can also cause kidney failure.

It is Mrs. K_____''s fifth day at the hospital, and she is slipping closer to death: her lungs begin to fail. She is put on a respirator ("inhal respirator"), which costs \$119 a day to rent and requires a special technician to operate. A hospital can buy the machine for about \$15,000.

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tensive Care ends in a flourish of blood tests. She has five Chem-8s ("lab chem-8") tests that measure the levels of sodium, potassium, and six other chemicals in her blood. The hospital charges Mrs. K _____ \$31 for each Chem-8. Most independent labs charge about half as much; some hospitals charge up to \$60. The New England Journal of Medicine has said: "The clinical laboratory [is] a convenient profit center that can be used to support unrelated deficit-producing hospital operations." The Annals of Internal Medicine estimates that the number of clinical lab tests being done is rising 15 percent a year.

Mrs. K _____''s first week in In-

Mrs. K ____ has started peritoneal dialysis ("dial-perid kit 87110"). Her kidneys are failing. She is still hooked up to the respirator. She is being kept alive by what Lewis Thomas calls "halfway technologies" — "halfway" because kidney dialysis machines and respirators can support organ systems for long periods of time, but can't cure the underlying disease. Some doctors are beginning to question this practice. A recent study at the George Washington University Medical Center concluded: "Substantial medical resources are now being used in aggressive but frequently futile attempts to avoid death."

Mrs. K ____ has been put in a vest restraint. Restraints are used in Intensive Care to keep patients from thrashing about or pulling their tubes out. Many ICU patients develop what is called "ICU psychosis." They become disoriented, begin hallucinating. The condition is brought on by lack of sleep, toxic drugs, the noise of the ICU staff and machines, and pain.

Mrs. K ____ has been on the respirator for six days. It is breathing for her. But there has been a problem. The tube running from the machine into her mouth and down her throat was not bringing enough oxygen to her lungs. She needed a tracheotomy ("trach care set"). The tube from the respirator is now attached directly to her trachea, through a hole cut into her neck.

This charge—for a blood product ("5 NSA 250MU proc fee") — is not covered by Mrs. K _____ 's Blue Cross policy. The policy also does not cover the cost of fresh blood plasma ("frsh fr pla proc fee"). These charges have been mounting. Mrs. K _____ is bleeding internally.

Mrs. K ____ has been in Intensive Care for two weeks. She is still running a very high fever. The doctors are still testing. Mrs. K ____ has been placed on a special blanket; it is hooked up to a machine that functions like a refrigerator ("hypothermia machine"). The machine cools the blanket, and the blanket helps lower Mrs. K_____'s body temperature. Should her temperature rise too high, she may suffer permanent brain damage.

Mrs. K ____ has undergone a gated blood-pool study ("nuc med sec/pool sty"). The doctors have "tagged" her red blood cells with a radioactive isotope. Using a camera that picks up the isotope, the doctors can watch the passage of blood through her heart. In this way, they see firsthand whether the ventricles functioning properly whether enough blood is getting pumped, enough oxygen is being sent through the body. First her lungs, then her kidneys. Now Mrs. K _____ 's heart seems to be going.

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SUMMARY OF CHARGES R&C IN. CARE 24 DAYS 500.00/DAY 12000.00

SUB-TOTAL OF CHARGES

Mrs. K _____ 's fourth week in the hospital begins with a spinal tap. Using a long needle, a doctor drains fluid from her spinal cord. The fluid is sent to the lab for about a dozen tests ("lab sp fl cell ct"). A spinal tap is performed when a patient has what are called "neurological signs." Partial paralysis is one such sign, loss of consciousness another. When doctors order a spinal tap, they suspect brain disease.

Weeks of halfway technology have given the doctors time for testing. The doctors may even have diagnosed what is wrong with Mrs. K____; it is hard to say. But the ICU and its technology have not given them the ability to cure her. Now the heart, which has been failing, gives out. Cardiac arrest. There is a burst of activity. Bicarbonate, epinephrine, and other drugs ("pharmacy") are administered. Thirteen bottles of intravenous solution ("phar iv solutions") are poured in.

Mrs. K _____ 's last minutes are recorded on the various ICU monitors. The level of oxygen in her blood falls. She dies.

TOTAL 47311.20

47311.20

Mrs. K _____ 's bottom line. Total cost of twenty-six days in the hospital, nearly all this time in Intensive Care: \$47,311.20. Of this, Blue Cross will pay \$41,933.87. The doctors' bills, not covered by hospitalization insurance, probably come to thousands of dollars more. Perhaps Mrs. K ____ had Blue Shield, which covers doctors' fees. In 1982, the last year for which figures are available, Americans spent \$322 billion on health care. Of this, \$135.5 billion was spent on hospital care. There were 56,241 ICU beds in 1982 like the one Mrs. K _____ was kept alive in, and about \$27 billion was spent for their use. That represented nearly one percent of the gross national product.