

**TENNESSEE DEPARTMENT OF REVENUE
LETTER RULING # 99-31**

SUBJECT

Application of sales and use tax to medical equipment.

SCOPE

This letter ruling is an interpretation and application of the tax law as it relates to a specific set of existing facts furnished to the department by the taxpayer. The rulings herein are binding upon the Department and are applicable only to the individual taxpayer being addressed.

This letter ruling may be revoked or modified by the Commissioner at any time.

Such revocation or modification shall be effective retroactively unless the following conditions are met, in which case the revocation shall be prospective only:

- (A) The taxpayer must not have misstated or omitted material facts involved in the transaction;
- (B) Facts that develop later must not be materially different from the facts upon which the ruling was based;
- (C) The applicable law must not have been changed or amended;
- (D) The ruling must have been issued originally with respect to a prospective or proposed transaction; and
- (E) The taxpayer directly involved must have acted in good faith in relying upon the ruling; and a retroactive revocation of the ruling must inure to the taxpayer's detriment.

FACTS

[THE TAXPAYER] is a for-profit institution located in [CITY], Tennessee. The taxpayer purchases various medical supplies that are prescribed for medical treatment of patients by a licensed practitioner of the healing arts. These patient medical supplies are subsequently included in a complete itemization and billed to the patient.

Perfusion supplies and services are purchased from a vendor on behalf of cardiac surgery patients. Today's cardiac procedures can be performed in one of two ways. The first type of cardiac surgery can be performed with the heart "still." Once the heart is made "still" and no longer functioning, the pumps and related perfusion supplies immediately assume the responsibilities of both the heart and

the lungs. To be specific, the perfusion supplies pump the patient's blood while adding oxygen and removing excess CO₂ from the blood.

The second type of cardiac surgery performed is "beating heart" surgery. This procedure has perfusionists on stand-by who may or may not open any of the perfusion supply packages. The taxpayer agrees that during "beating heart" surgery any supply package used that doesn't replace a missing body part or augment the performance of a natural body function would not be exempt from Tennessee sales and use tax.

A perfusionist is a skilled person who operates extracorporeal circulation equipment (equipment used to circulate the blood and/or bodily fluids outside of the body) during any medical situation where it is necessary to support or replace the patient's cardiopulmonary/circulatory function and ensures the proper management of physiologic functions by monitoring the necessary variables. Upon prescription by a physician and in accordance with hospital policy, these duties include, but are not limited to, the following:

- a. counterpulsation
- b. circulatory support ventricular assistance
- c. extracorporeal membrane oxygenation
- d. myocardial preservation
- e. blood gas and blood chemistry monitoring/analysis
- f. hemofiltration
- g. dialysis

Perfusionists are knowledgeable concerning the variety of equipment available to perform extracorporeal circulation functions and are responsible, in consultation with the physician, for selecting the appropriate equipment and techniques to be used prior to surgery. Depending on the needs of the patient and the preferences of the physician, there are many different cardiopulmonary bypass set-ups which can be used for each surgery.

To insure sterility, many of the set-ups are prepackaged by the manufacturer to contain multiple perfusion disposables within one package. Additionally, some disposables are heat bonded together to maintain the integrity and sterility of the disposables.

Heat bonding involves permanently connecting two or more components which are to be used together. For instance, a venous saturation sensor (a monitoring device) might be connected by tubing to a pump. The tubing would be heat bonded to each component prior to surgery to insure a good connection. Heat bonding is considered a customization service performed by the vendor. Each surgery requires specific components set up in a specific manner. Once the parts are ordered, the taxpayer can have them bonded in whatever manner is needed at no extra charge. As part of this customization service, the vendor will

make components whatever distance from each other that the taxpayer wants by changing the length of the tubing. Because the bonding is permanent, the taxpayer must purchase the items once they are customized.

Because the set-ups are made-to-order, the components remain separately itemized on the invoice even though they may be connected by heat bonding.

The following are some of the products used during the procedure:

A. Basic membrane tubing packs; table tubing packs; membrane oxygenators; arterial line filters; and centrifugal pump/flow probes are items of equipment and tubing that supplant the patient's pulmonary function for gas. The oxygenator thus acts as an artificial "alveolar-pulmonary capillary system" for gas exchange within the patient's body. It also contains tubing used for such functions as suction/venting, connectors, and prebypass filter.

B. A hemoconcentrator is an extra device inserted into the bypass circuit to pull fluids out of the circulation to increase the patient's hematocrit.

C. An intraaortic balloon pump (IABP) set is a disposable balloon threaded up the aorta to take the workload off the heart in patients with cardiac failure or failure to come off the cardiopulmonary bypass system. It consists of a balloon attached to a catheter inserted in the aorta that is automatically inflated during diastole and deflated during systole, thereby increasing intraaortic pressure.

D. A double line set contains extra tubing for the bypass circuit and is used for procedures of mitral valve replacements/repairs and atrial septal defects. It connects two venous cannulae in a "Y" fashion. A plastic "Y" connector may be used instead.

E. A cardioplegia tubing set is used for myocardial protection during bypass procedures which keeps the patient from having a heart attack. Cold fluids are pumped into cardiac arteries or veins to reduce the heart's metabolic needs.

F. A cell saver is a machine used to suction a patient's own blood so that it can be processed and delivered back to the patient in the form of washed red blood cells. The cell saver can be used pre-pump, on pump, and after pump. It is totally separate from the bypass pump.

Upon completion of the surgery, the blood contaminated plastic pumps, tubing, oxygenator, etc., are immediately disposed of in accordance with OSHA standards for hazardous waste.

QUESTIONS

1. Do any of the listed perfusion products purchased on behalf of the patients by the taxpayer qualify as exempt medical equipment under T.C.A. § 67-6-314(5)?
2. What are the sales and use tax consequences when a taxable item is heat bonded to a nontaxable item as described in the facts?

RULINGS

1. A. Basic membrane tubing packs, table tubing packs, membrane oxygenators, arterial line filters, and centrifugal pump/flow probes are exempt from sales and use tax.
B. Hemoconcentrators are subject to sales and use tax.
C. IABP sets are exempt from sales and use tax.
D. Double line sets are exempt from sales and use tax as a prosthetic device.
E. Cardioplegia tubing sets are subject to sales and use tax.
F. Cell savers are subject to sales and use tax.
2. Under the facts of this ruling, heat bonding taxable and nontaxable items together will not change the sales and use tax treatment of each item, provided the items remain separately stated with a separate charge on the invoice as described. If, under different facts, the charge for taxable and nontaxable items could not be separated, then the entire charge would be subject to tax.

ANALYSIS

T.C.A. § 67-6-314(5) provides the following exemption from sales tax.

“There is exempt from the sales tax imposed by this chapter:

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(5) The sale of prosthetics, orthotics, special molded orthopedic shoes, walkers, crutches, surgical supports of all kinds, and other similarly medical corrective or support appliances and devices....”

A device is a prosthetic if it replaces a missing body part or augments the performance of a natural function. *Cordis Corp. v. Taylor*, 762 S.W.2d 138, 139 (Tenn. 1988). The exemption of orthotics has been applied to devices used to brace, support, or align the skeletal or muscular system. There is no specific exemption, however, for surgical tools or appliances used to perform surgery or invasive medical procedures.

1. Perfusion supplies are subject to tax as follows:

A. Basic membrane tubing packs, table tubing packs, membrane oxygenators, arterial line filters, and centrifugal pump/flow probes are described above as absolutely necessary to take the place of the patient's heart and lungs during the surgery. Based on this description, it appears these products temporarily replace the heart. Accordingly, these products are exempt from sales and use tax as prosthetic devices.

B. A hemoconcentrator is an extra device inserted into the bypass circuit to pull fluids out of the circulation to increase the patient's hematocrit. The hemoconcentrator is used in the bypass circuit. Based on the description provided, it does not appear that the hemoconcentrator replaces a body part or augments a natural function. Accordingly, it is subject to tax.

C. An IABP set is a disposable balloon threaded up the aorta to take the workload off the heart in patients with cardiac failure or failure to come off the cardiopulmonary bypass system. Based on the information given, this constitutes more than a mere surgical tool, as it acts to provide counterpulsation and to assist the heart's function. Accordingly, it is exempt from sales and use tax as a prosthetic device.

D. A double line set contains extra tubing for the bypass circuit. Because it is used in the bypass circuit that temporarily replaces the heart, it is also exempt as a prosthetic device.

E. A cardioplegia tubing set is used for myocardial protection during bypass procedures which keep the patient from having a heart attack. This set does not appear to act as a true prosthetic device as much as it serves as a prophylactic measure to prevent a heart attack. The cardioplegia tubing set is subject to sales and use tax.

F. A cell saver is a machine used to suction the patient's blood so it can be processed and delivered back to the patient. It is completely separate from the bypass pump. It does not serve as a prosthetic device. Therefore, the cell saver is subject to sales and use tax.

2. Under the facts provided, each surgery requires specific components set up in a specific manner. The taxpayer orders the needed items from the vendor. The vendor, as a service to its customer, will connect certain components together in a manner prescribed by the customer through the process of heat bonding so that the tubes cannot be disconnected. This helps maintain sterility and insures a good connection. The components remain separately itemized with a separate charge on the invoice. Because the bonding is permanent, the taxpayer must purchase the items once they are customized.

Under these facts, where the items remain separately stated with a separate charge on the invoice, there is no change in the treatment of taxable and nontaxable items. If, under different facts, the charge for taxable and nontaxable items could not be separated, then the entire charge would be subject to tax.

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APPROVED: Ruth E. Johnson
Commissioner

DATE: 11/5/99