Treatment of Staphylococcal Infections

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Resistant strains of Staphylococcus aureus have become a widespread problem.[1] Originally very sensitive to penicillin,[2] this organism rapidly developed resistance. At first the resistant organisms were mainly nosocomial, but recently have appeared in outpatient infections.[3,4] Inappropriate antibiotics can result in death, prolonged illness,[5] or increased costs to the patient.

Clinton Hospital, an 82-bed community hospital, serves six communities with a total population of approximately 35,000. Located in central Massachusetts, the population is quite provincial, and most repeatedly return to this hospital for medical care. Therefore, this seemed an almost ideal study group.

Method

From September 1975 through December 1975, 100 consecutive cultures growing Staphylococcus aureus coagulase positive at Clinton Hospital were replanted on Mueller Hinton 150 mm agar (Scott) and disc tested for antibiotic sensitivity using the Kirby-Bauer method.[6] The sites of the cultures included abscesses, throats, wounds, conjunctivas, and urines.

Of the 100 cultures, 36 were from inpatients, while 64 were from the outpatient department (Primary Care Center).

Results

All staphylococci were sensitive to chloramphenicol, cephalosporin, methicillin, clindamycin, and streptomycin. Only eight were sensitive and nine indeterminate to penicillin. Two of the sensitive cultures were from inpatients (5.9 percent), and six from the outpatients (9.4 percent). Four of the indeterminate were from inpatients (11.1 percent), and five from outpatients (7.8 percent). Ampicillin gave identical sensitivities.

Only two cultures showed an organism not sensitive to erythromycin: one from an inpatient (3 percent), and one from an outpatient (1.6 percent). There were only four resistant cultures to tetracycline, with one indeterminate culture. One was from an inpatient (2.8 percent) and three of the resistant were from outpatients (4.7 percent). The indeterminate culture was from an outpatient (1.6 percent).

Comment

The cost of antibiotics to the hospital pharmacy was investigated. The pharmacist usually buys the generic drug at the lowest cost, rather than ordering different brands.

Ampicillin 250 mg (Polycillin) costs $15.33/100 capsules. Erythromycin 250 mg (Erythrocin) costs $10/100 tablets. Cephalexin 250 mg (Keflex) costs $31.50/100 capsules, while tetracycline 250 mg (Achromycin) costs $4.50/100. Clindamycin 150 mg (Cleocin) costs $24.49/100 capsules.

Thus, ten days of q.i.d. ampicillin costs the pharmacy $6.13; erythromycin costs $4; cephalexin $12.60; and tetracycline costs $1.80. Clindamycin t.i.d. for ten days would cost the pharmacy $7.35. Allowing for a 50 percent markup, ampicillin treatment costs the *patient* $9.20, erythromycin $6, cephalexin $18.90, tetracycline $2.70, and clindamycin $11.03.

However, ampicillin is obviously a poor choice since only 17 percent of staphylococci will show any sensitivity. Thus erythromycin at $6 per ten-day course and tetracycline at $2.70 per ten-day course combine effectiveness and price. Although both are bacteriostatic, the latter has more side effects[7,8] and must not be taken with milk, milk products, or antacids.[9] Erythromycin compliance can be improved by ordering two tablets twice a day, rather than one tablet four times daily. Thus for in vitro sensitivity, cost, side effects, and patient compliance, erythromycin can be the antibiotic of choice for most mild to moderate Staphylococcus aureus infections in Clinton, Massachusetts.

This study deals only with mild to moderately severe infections – not those which may threaten death or disability, and the data are applicable only to Clinton, Massachusetts. A similar analysis of any localized population can save patients money and reduce the duration of their illnesses.

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From Clinton Hospital, Clinton, Massachusetts. Requests for reprints should be addressed to Dr. Stephen D. Boren, Clinton Hospital, Clinton, Mass 01510.

P-H Doctor's Tax Report

THE P-H DOCTOR'S TAX REPORT brings you ideas for reducing taxes and increasing wealth. It is recommended that you consult your own professional adviser before acting on these ideas.

An Attractive Tax Shelter: Apartment Houses

Thanks to the Tax Reform Act, more and more professional people are finding that existing apartment houses offer an attractive tax and investment opportunity. And these apartments become even more attractive since a change in law makes it possible to make such investments with a minimum outlay of cash – say as little as 15 percent. Thanks to the FHA Section 223 (f) Program, the FHA can insure *existing* apartment houses. Before 223(f), the insurance was restricted to new ones.

As your accountant or tax counsel will explain, existing residential property escapes almost all the crackdowns of the new Tax Law. Thus, the traditional tax advantages of owning income-producing real estate are still available when you buy an apartment house. To illustrate the possibilities, the attorney-editors of *Prentice-Hall Doctor's Tax Report* prepared this Question-and-Answer dialogue:

Q. Exactly what are the big tax advantages of owning income-producing real estate, such as an apartment house?

A. The biggest tax advantage is the deduction you are allowed for depreciation. Unlike others, this deduction does not involve any additional out-of-pocket expense. Even if the property goes up in value, as many do, you get a deduction year after year for its entire useful life, say 35 years. And you get this deduction undiminished by any depreciation deduction taken by a previous owner.

Whatever income from the property is left after paying all expenses (also deductible) is protected from income tax up to the amount of your depreciation deduction. In some cases, the deduction is big enough to shelter not only the cash you get, but also payments on mortgage principal (not deductible) and some income from other sources.

Q. Won't the fact that I borrowed money to buy the property cut down on the amount of depreciation I can take?

A. Not a penny. The deduction is not based on the cash you put in, but on the total cost of the building (your downpayment plus the mortgage amount).

The land is not depreciable. If you buy an apartment house for say $250,000 ($200,000 for the building, $50,000 for the land), you get depreciation on $200,000, even though you put little or no cash into the deal.

Q. FHA-Insured Mortgages are non-recourse loans – the investor is not personally liable. Doesn't the Tax Reform Act crack down on investments that use non-recourse financing?

A. Yes, it does. But the crackdown does not apply to investments in real estate, whether the investor acts alone or with others in a partnership. The general rule: You cannot deduct losses in excess of your investment at risk (the amount of cash you put in plus amounts for which you're personally liable) in an investment set up as a partnership. In four specific areas – oil and gas, motion pictures, equipment leasing, and farming – the same tough rule applies to individual investors as well.

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Real estate – and real estate alone – is specifically exempted from these provisions. So even though you are not personally liable on the mortgage, you are still entitled to a full tax writeoff from your real estate investment.

Q. Was there any crackdown at all on residential real estate?

A. Yes, but a minor one. It's the provision that deals with recapture. How it works: any stepped-up depreciation you take that exceeds straight-line depreciation is recaptured if and when you sell the property. In other words, it is taxed as ordinary income instead of as capital gain. You are allowed to deduct depreciation on existing apartment houses at 125 percent of the straight-line rate.

Q. This sounds like an attractive deal. How does FHA Section 223(f) Program you mentioned earlier help me to get financing?

A. Under this program, the FHA insures mortgages on existing apartment houses. The mortgages can be as high as 85 percent of appraised value. In other word, downpayments can be as little as 15 percent. Both big and small apartment houses are eligible: as big as you want and as few as eight units. The mortgage can run up to 35 years. The top interest rate is set by the FHA (it is nine percent currently).

Without FHA insurance, lenders would not be willing to make loans with downpayments as low as 15 percent. As a matter of fact, the law would not permit them to do so.

Q. Suppose I want to reduce my downpayment below 15 percent. Does FHA permit me to place a second (uninsured) mortgage on the property, and if so, are there any limitations on the second mortgage?

A. This program (unlike other FHA programs) lets the investor get a second mortgage of 7½ percent. This cuts the investor's downpayment to 7½ percent. However, this second mortgage must be an interest-only mortgage, with the principal not payable until the maturity date of the FHA-insured first mortgage.

Q. How is it possible to get a second mortgage on such liberal terms?

A. The seller will often give it to you. He gets 92½ percent of the purchase price in cash (85 percent from the first mortgage proceeds and 7½ percent from your downpayment). And on top of that, he gets interest payments each and every year for the life of the mortgage. All in all, a good deal for sellers who often must take back a much larger second on sales financed conventionally (that is, without FHA insurance.).

Prentice-Hall reports that already millions of dollars worth of property have been financed under Section 223(f). The reason is clear. It provides the financing that is the key to successful investment in real estate. It is an opportunity which suggests an early meeting with your accountant and attorney.

IRAs More Valuable Than Ever in 1977

Individual Retirement Accounts (IRAs) have been around since 1975. They allow physicians who are not covered by qualified corporate pension plans, Keogh plans, etc, to provide for their future. You can contribute up to the lesser of $1,500 or 15 percent of earned income to an IRA, and take a

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