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Exclusive Contracts Between Hospitals and Physicians

by

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1. Introduction

Exclusive contracts assign to certain physicians the right and duty to provide all services covered by the contract. All other physicians are foreclosed from providing these services. Many physicians have brought legal complaints alleging that their exclusion constitutes an antitrust violation. In what follows, we analyze the economic motivation for hospital-physician exclusive contracts and review the two different antitrust rules that govern many complaints.

2. Exclusive Contracts, Competition and Antitrust Law

Prior to Goldfarb v. Virginia State Bar, the vast majority of cases challenging exclusive contracts were not grounded on antitrust law.[1] That decision, which dismantled the "learned profession" exemption from antitrust law, gave rise to numerous lawsuits against exclusive contracts, brought under Section 1 of the Sherman Act. Plaintiffs have argued that they are illegal under the *per se* rule,[2] because they tie physician services to hospital services, or that they are illegal under the rule of reason, because they restrain trade in physician markets.[3] Only one of these challenges have succeeded. We first examine tying arrangements.

Tying exists when hospital services are only available on the condition that the buyer also purchase the services of a particular physician or physician group. Plaintiffs maintain that tying allows hospitals to increase their profits by allowing them to leverage their monopoly power into the physician market. To support their analysis plaintiffs have argued that two products exist (e.g. physician services and hospitals services), that certain customers prefer the services of a

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[1] E.g. constitutional depravations and contract breeches.

[2] *Per se* offenses are those restraints that have been deemed so antithetical to competition that proof of their actual effects upon competition is not necessary.

[3] The rule of reason requires a fuller analysis of the pro- and anticompetitive effects of such relationships.

particular physician but were unable to purchase those services at the hospital, and that the hospital possessed a sufficient amount of market power to reduce consumer welfare. Hospitals have counter argued that the choice of a physician is always limited, that only one product is being produced (health), albeit through a complex array of intermediate products and services, and finally that anti-competitive tying can only serve to lower hospital profits and not raise them, as demand for the hospitals services is a function of the total price paid for all inputs, including physician services (Lynk, 1994). The most fundamental argument is that tying does not increase hospital profits. Because higher physician prices can only serve to deter hospital demand, not enhance it, tying arguments are unconvincing.

Tying is not the only legal complaint. Rather, it has been more often argued that exclusive deals unreasonably restrain trade in physician markets. Because these charges are analyzed under the rule of reason, judges and juries have to weigh the procompetitive benefits against potential anticompetitive effects. Hospitals have argued that consumers benefit from exclusive contracts through increased efficiency and quality, and that when several other hospitals are located nearby, the exclusion of the physician at one hospital does not much harm physician competition. Our judgment is that exclusive contracts are usually not harmful to competition where a substantial number of hospitals compete.

But, medical staff influence over exclusive contracts may harm competition among physicians. This possibility arises because the medical staff governs physician activities and also makes authoritative recommendations on physician privileges (Havighurst, 1984). Especially where hospitals face little competitive pressure, they may be induced to attenuate competition in

the physician market through the use of exclusive contracts.[4] While the exploitation of market

power by physicians is usually against the interests of the hospital, hospitals may be coerced or

influenced into accepting an exclusive contract that reduces profits.[5] Our judgment is that a

competitive issue might be raised where there are few hospital competitors.

3. How Common Are Exclusive Contracts?

Table I shows that in 1984 and 1989 roughly 73% of hospitals had at least one exclusive

contract. The most common hospital-physician exclusive contract is with pathologists, followed

Table I. Percentage of Hospitals Having Exclusive Contracts
with Various Physician Specialties in 1984 and 1989.

Category	1984 (%)	1989 (%)
Pathology	62.3	59.5
Radiology	59.9	58.8
Emergency Medicine	48.7	52.4
Anesthesiology	30.2	35.2
Any exclusive contracts	73.4	73.1

Source: Morrisey and Brooks (1985) and the SHMSO (1989).

by radiologists, emergency medicine and anesthesiologists. Overall between 1984 and 1989

there was a slight, but significant, increase in the total number of exclusive contracts. While

some authors (Liang, 1997 and Borkon, 1996) have attributed this increase to managed care,

exclusive contracts were common prior to the rise of managed care.

4. The Relation To Hospital Market Power

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[4] Closed medical staffs provide similar benefits to incumbent physicians and are, therefore, analytically similar.
[5] Profits are only one argument in a hospital's utility function.

In the only empirical study of exclusive contracts to date, William Lynk and Michael Morrisey (1987) claimed to have shown that exclusive contracts were not related to hospital monopoly power. Their empirical model can be summarized as

$$(1) \qquad \Pi_{ij} = \alpha + \beta H_j + \gamma S_i + \sum \delta Z_{ij},$$

where Π_{ij} is the probability of an exclusive contract at hospital i in county j, S_i and H_j, proxies for market power, were defined as the hospital's market share and the Herfindahl index respectively at the county level and Z_{ij} is a vector of hospital and county specific control variables.

Recognizing that increases in market share affect the Herfindahl index algebraically, Lynk and Morrisey developed a methodology that they thought captured the net effect of these characteristics. Their procedure reduces to adding the Herfindahl and share coefficients together (net effect = $\beta + \gamma$). As reproduced in Table 2, their results indicate that increased hospital "market power" reduced the likelihood of an exclusive contract with most physician specialties. Thus, Lynk and Morrisey conclude that exclusive contracts are not used to confer market power on a favored group of specialists (Lynk and Morrisey, p. 413).

Unfortunately, this conclusion does not follow as the methodology used to evaluate the net effects of hospital concentration and market share is flawed. Instead, the total derivative should have used to evaluate the total effect of market share and concentration on the probability of an exclusive contract. Specifically, the total derivative is given by,

$$(2) \qquad \frac{d\Pi_{ij}}{dS_i} = \frac{\partial \Pi_{ij}}{\partial S_i} + \frac{\partial \Pi_{ij}}{\partial H_j}\frac{dH_j}{dS_i}.$$

As one can see, Lynk and Morrisey implicitly assume that dH_j/dS_i is equal to 1, where $d\Pi_{ij}/dS_i$ = γ and $d\Pi_{ij}/dH_j$ = β. But dH_j/dS_i is not generally equal to 1.[6] If instead one uses their parameter estimates and incorporates a simulated value of the term dH_j/dS_i the opposite conclusion is reached.[7] Table II indicates that, in sharp contrast to Lynk and Morrisey, the probability of

Table II. Estimates of the Effects of Hospital Market Power on the Likelihood of a Hospital-Physician Exclusive Contract

Specialty	Lynk and Morrisey Net Effect	Total Derivative Net Effect
Anesthesia	-.204	.163
Emergency	-.066	.538
Radiology	-.377	-.101
Pathology	.245	.455

adopting an exclusive contract is positively related to hospital market power for most physician specialties. Since informal exclusive contracts, more common in concentrated rural markets, are not covered by the data, the true relationship is stronger. Further, the traditional claims that exclusive contracts improve efficiency by eliminating free riders and improving property rights are problems that are less serious in small concentrated markets. For exclusive contracts to be more common in more concentrated markets indicates that physicians may have used such contracts to generate monopoly power.[8]

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[6] For example, if all markets were composed of two firms then theoretically dH_j/dS_i is equal to zero on average.

[7] We consider a simulated merger where the market share of a "leader" changed from 25 to 75 percent (which raises the Herfindahl index from 0.1750 to 0.5750). This resulted in a reasonable industry estimate of 0.8 for dH_j/dS_i. See Lynk and Morrisey (1987) for further details.

[8] Indeed, under the efficiency rationale, exclusive deals should be very rare in monopoly markets.

This finding should be regarded as suggestive for two reasons. First, because we do not have 1984 data, or the covariance of β and γ, we are unable to examine the precision of our corrected net effect. Second, and more importantly, the empirical specification by Lynk and Morrisey, after incorporating our correction, only provides evidence that exclusive contracts are positively associated with increased hospital market power. This methodology does not allow one to examine physician pricing practices under exclusive contracts. That is, a better test is to simply ask whether physician prices are higher under exclusive contracts than without. We conclude that even while exclusive contracts may bring with them efficiency gains, they should be examined rigorously in less competitive markets. We are pursuing further research on this issue.

5. Conclusion

As indicated above, only one exclusive contract case, notably involving a rural hospital, has been successfully prosecuted under antitrust law (Oltz v. St Peter's Community Hospital). In that instance, a group of anesthesiologists obtained an exclusive contract after threatening to leave if a nurse anesthetist was not terminated. The court record indicated that after she was terminated, the anesthesiologists annual earnings increased 40 to 50 percent. Obviously, the excluded nurse anesthetist was an important low cost competitor.

Physician power over hospitals seems to be declining as hospitals respond to an ever more competitive environment. However, isolated, unavoidable pockets of physician market power are likely to remain, especially in concentrated local markets. The courts should carefully weigh the competitive benefits and costs of exclusive contracts in these areas.

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