

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

FEDERAL TRADE COMMISSION,

and

STATE OF ILLINOIS

*Plaintiffs,*

v.

ADVOCATE HEALTH CARE NETWORK,

ADVOCATE HEALTH AND HOSPITALS CORP.,

and

NORTHSHORE UNIVERSITY HEALTHSYSTEM,

*Defendants.*

Case No.: 1:15-cv-11473  
Judge Jorge L. Alonso  
Mag. Judge Jeffrey Cole

**FILED UNDER SEAL**

**DEFENDANTS' MEMORANDUM IN SUPPORT OF THEIR MOTION TO  
EXCLUDE THE TESTIMONY AND REPORT OF STEVEN A. TENN, PH.D**

Robert W. McCann, Esq.

Kenneth M. Vorrasi, Esq.

John L. Roach, IV, Esq.

Jonathan Todt, Esq.

Drinker Biddle & Reath LLP

1500 K Street, N.W., Suite 1100

Washington, D.C. 20005

John R. Robertson, Esq.

Leigh Oliver, Esq.

Hogan Lovells US LLP

555 13th Street, NW

Washington, D.C. 20004

David E. Dahlquist, Esq.

Michael S. Pullos, Esq.

Winston & Strawn LLP

35 W. Wacker Drive

Chicago, Illinois 60601

*Counsel for Defendant NorthShore  
University HealthSystem*

April 1, 2016

*Counsel for Defendants Advocate  
Health Care Network and  
Advocate Health and Hospitals Corp.*

## **TABLE OF CONTENTS**

	<u>Page</u>
INTRODUCTION AND SUMMARY .....	1
LEGAL STANDARD.....	3
ARGUMENT .....	5
A. Dr. Tenn Forces an Unreliable Predetermined Result by Disregarding Facts About Critical Market Participants .....	5
1. Dr. Tenn Ignored Hospitals that Compete with Advocate and NorthShore.....	5
2. Dr. Tenn Ignores Outmigration and Immigration. ....	9
B. Dr. Tenn’s Report Does Not Follow the Methodology Espoused by the FTC on How to Assess the Competitive Effects from the Merger .....	10
C. Dr. Tenn’s Novel Model Employed to Determine Competitive Effects is Contrary to the Bargaining Model He Employed Elsewhere.....	12
CONCLUSION.....	14

## TABLE OF AUTHORITIES

	Page(s)
<b>Cases</b>	
<i>Chapman v. Maytag Corp.</i> , 297 F.3d 682 (7th Cir. 2002) .....	4, 10, 14
<i>Cummins v. Lyle Indus.</i> , 93 F.3d 362 (7th Cir. 1996) .....	4
<i>Daubert v. Merrell Dow Pharms., Inc.</i> , 509 U.S. 579 (1993).....	3, 10
<i>Dhillon v. Crown Controls Corp.</i> , 269 F.3d 865 (7th Cir. 2001) .....	3
<i>Jones v. Nat'l Council of YMCA</i> , 34 F. Supp. 3d 896 (N.D. Ill. 2014) .....	4
<i>Jones v. Nat'l Council of YMCA</i> , No. 09 C 6437, 2013 WL 7046374 (N.D. Ill. Sept. 5, 2013).....	4
<i>Krik v. Crane Co.</i> , 76 F. Supp. 3d 747 (N.D. Ill. 2014) .....	4, 5, 10
<i>Kumho Tires Co., Ltd. v. Carmichael</i> , 526 U.S. 137 (1999).....	3
<i>Mid-State Fertilizer Co. v. Exchange Nat'l Bank</i> , 877 F.2d 1333 (7th Cir. 1989) .....	4
<i>Tyus v. Urban Search Mgmt.</i> , 102 F.3d 256 (7th Cir. 1996) .....	3
<i>U.S. Gypsum Co., v. LaFarge N.A. Inc.</i> , 670 F. Supp. 2d 748 (N.D. Ill. 2009) .....	4
<i>Zenith Elecs. Corp. v. WH-TV Broad. Corp.</i> , 395 F.3d 416 (7th Cir. 2005) .....	4
<b>Other Authorities</b>	
Federal Rule of Evidence 702 .....	3, 10

Defendants Advocate Health Care Network, Advocate Health and Hospitals Corp. (“Advocate”) and NorthShore University HealthSystem (“NorthShore”) (collectively, “Defendants”), submit this Memorandum in Support of their Motion to Exclude the Testimony and Report of Steven A. Tenn, Ph.D (“Dr. Tenn”).

### **INTRODUCTION AND SUMMARY**

Advocate and NorthShore move to exclude the expert opinions of Dr. Tenn because (1) in manufacturing a gerrymandered geographic market, he ignored record facts concerning hospital competition in the Chicagoland area, (2) he did not follow the FTC’s own accepted methodologies to estimate inpatient price increases that might result from the merger, and (3) he ignored empirical data collected by the FTC that is typically employed in a “Stage 2” hospital merger analysis in favor of a methodology that is neither accepted nor theoretically consistent with the “bargaining model” he employs elsewhere in his analysis. Dr. Tenn admitted that he has no knowledge that his novel method has ever been accepted by any court (or even used by any plaintiff in court) or accepted by the scientific community in the published literature.<sup>1</sup>

Dr. Tenn’s proposed geographic market (the “North Shore Area”) is based on the omission of facts that lead to answers different than those he seeks to prove. Ignoring basic market facts, he excluded from his proposed market numerous third party hospitals – including so-called “academic medical centers” and other hospital systems in or closely situated to his “North Shore Area” – that are actually closer substitutes to the Advocate and NorthShore hospitals than other hospitals that Dr. Tenn included in his proposed market. This approach flatly contradicts the FTC’s own Merger Guidelines, which explicitly state that “[a]ll firms that currently earn revenues in the relevant market are considered market participants.” *See* U.S.

---

<sup>1</sup> Ex. H, Mar. 29, 2016 Tenn. Dep. Tr. 371:2-4 [REDACTED]  
[REDACTED]  
[REDACTED]

Department of Justice and Federal Trade Commission’s 2010 Horizontal Merger Guidelines, § 5.1 (“Merger Guidelines”) (emphasis added). Indeed, Dr. Tenn’s own data shows that Northwestern Memorial Hospital is either the “second choice” or “third choice” for patients at *all* four NorthShore hospitals. Yet he managed to exclude Northwestern (and other large medical centers) from his proposed geographic market by inventing a new category of hospital (a “destination hospital”) that is not recognized in any of the relevant academic literature or case law.

Dr. Tenn also calculated a price increase from the proposed merger in his gerrymandered market without executing “Stage 2” of the FTC’s accepted hospital merger simulation (“HMS”) model. The purpose of the “Stage 2” analysis in the HMS model is to estimate how much a hospital’s potential relative bargaining strength vis-à-vis health plans (such as Blue Cross and Cigna) translates to price changes following a merger, using empirical data from participants in that market. Dr. Tenn admitted that he did not execute this Stage 2 analysis, which, in direct contradiction to his conclusions, establishes that the proposed merger would *not* produce anticompetitive effects. Instead, Dr. Tenn sought to excuse his omission by opining that the results obtained by Defendants’ expert economists (who actually performed the requisite analysis using data obtained by the FTC from the relevant health plans) are somehow “[REDACTED].”

Instead of the bargaining model customarily employed by FTC economists in a Stage 2 analysis, Dr. Tenn employed a novel “price-setting” model that necessarily made the unsupported assumption that hospitals possess *all* of the bargaining strength in price negotiations with payers. That “price-setting” model is at odds with the “bargaining model” employed elsewhere in his analysis. To make matters worse, Dr. Tenn made the unsupported assertion that his novel price-setting model is “equivalent” to the bargaining model typically employed in this setting. There is no empirical or reliable academic literature support for that assertion.

Any one of these deficiencies should lead to the exclusion of Dr. Tenn's opinions in their entirety; collectively, they establish that Dr. Tenn's analysis provides no basis for the relief sought by Plaintiffs and reveal Dr. Tenn's analysis is contrived to support a pre-determined conclusion contrary to the facts. Accordingly, the Court should exclude from evidence the opinions and testimony of Dr. Tenn pursuant to Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993).

### **LEGAL STANDARD**

It is the task of district courts to perform a "gatekeeping" function to ensure that proffered expert evidence "both rests on a reliable foundation and is relevant to the task at hand." *Daubert*, 509 U.S. at 597; *see also* Fed. R. Evid. 702 (to be admissible, (a) "scientific, technical, or other specialized knowledge [must] assist the trier of fact to understand the evidence or to determine a fact in issue," and "(b) the testimony [must be] based upon sufficient facts or data; (c) the testimony [must be] the product of reliable principles and methods; and (d) the expert [must have] reliably applied the principles and methods to the facts of the case"). *Daubert* identifies specific factors that the Court should consider when deciding whether to qualify a scientific expert, including: "(1) whether the proffered theory can be and has been tested; (2) whether the theory has been subjected to peer review; (3) whether the theory has been evaluated in light of potential rates of error; and (4) whether the theory has been accepted in the relevant scientific community." *See Dhillon v. Crown Controls Corp.*, 269 F.3d 865, 869 (7th Cir. 2001) (citing *Daubert*, 509 U.S. at 593-594).<sup>2</sup>

---

<sup>2</sup> While *Daubert* directly addressed the qualification of experts who testify about "scientific" knowledge, courts apply *Daubert* to the qualification of any expert, even those who are not testifying about "scientific" knowledge. *See Kumho Tires Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999); *see also Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1996).

The Seventh Circuit has held expert testimony was properly excluded, for example, where the purported expert failed to conduct tests or experiments to justify his or her conclusions, or where the purported expert failed to “adhere to the same standards of intellectual rigor that are demanded in their professional work.” *Cummins v. Lyle Indus.*, 93 F.3d 362, 369 (7th Cir. 1996); *see also Chapman v. Maytag Corp.*, 297 F.3d 682, 688 (7th Cir. 2002) (remanding for a new trial where the expert’s theory was “novel and unsupported by any article, text, study, scientific literature or scientific data produced by others in his field” and where the expert “presented no proof that his theory is generally accepted in the scientific community”(internal citations and parentheticals omitted)); *U.S. Gypsum Co., v. LaFarge N.A. Inc.*, 670 F. Supp. 2d 748, 755 (N.D. Ill. 2009) (barring expert from testifying about certain subjects because “[h]is findings reflect a methodology that fails to employ the same level of intellectual rigor that appears to be the standard for expert evaluation . . .”).

Moreover, as the Seventh Circuit has instructed, testimony that is “full of assertion but empty of facts and reasons” should be excluded, *Mid-State Fertilizer Co. v. Exchange Nat'l Bank*, 877 F.2d 1333, 1339 (7th Cir. 1989), as should testimony that lacks “sufficient facts” and where the expert “all but concede[s] he ha[s] not applied ‘reliable principals and methods.’” *Zenith Elecs. Corp. v. WH-TV Broad. Corp.*, 395 F.3d 416, 418 (7th Cir. 2005). Courts in the Seventh Circuit have therefore excluded experts where they are “not persuaded” that the expert’s testimony is “adequately tied to the facts of [the] case.” *Jones v. Nat'l Council of YMCA*, 34 F. Supp. 3d 896, 900 (N.D. Ill. 2014) adopting *Jones v. Nat'l Council of YMCA*, No. 09 C 6437, 2013 WL 7046374, at \*9 (N.D. Ill. Sept. 5, 2013); *see also Krik v. Crane Co.*, 76 F. Supp. 3d 747, 753 (N.D. Ill. 2014) (excluding expert testimony on a theory related to the development of mesothelioma because the expert espousing the “‘Any Exposure’ theory” failed “to base their opinions on facts specific to this case.”).

## **ARGUMENT**

As demonstrated below, Dr. Tenn assumes as true within his analysis the very factual questions he was purporting to analyze. The Court should exclude his report and opinions.

**A. Dr. Tenn Forces an Unreliable Predetermined Result by Disregarding Facts About Critical Market Participants.**

Dr. Tenn's report is not based "on facts specific to this case" because his opinions systematically exclude evidence showing that Advocate and NorthShore face substantial competition from other hospitals. *Krik*, 76 F. Supp. 3d at 753. Indeed, Dr. Tenn's alleged "North Shore Area"<sup>3</sup> excludes the very hospitals that compete most directly with Advocate and NorthShore in Cook and Lake Counties. Dr. Tenn also completely ignored the significant levels of "outmigration" of patients from, and "inmigration" of patients into, that area, which is additional factual evidence that Advocate and NorthShore compete against a broader set of hospitals than Dr. Tenn chose to identify.<sup>4</sup>

**1. Dr. Tenn Ignored Hospitals that Compete with Advocate and NorthShore.**

Dr. Tenn excluded a number of large and significant hospitals from his "North Shore Area" – notably Northwestern Memorial Hospital, Rush University Medical Center, and the University of Chicago Medical Center<sup>5</sup> – even though these hospitals draw a significant share of

---

<sup>3</sup> To obtain a preliminary injunction, the FTC must establish "a product market and a geographic market" in which the proposed merger will supposedly lower competition. *FTC v. Tenet Health Care Corp.*, 186 F.3d 1045, 1051 (8th Cir. 1999).

<sup>4</sup> Ex. D, McCarthy Report ¶ 16 ("The definition of the relevant geographic market proposed by Dr. Tenn is ill-conceived and gerrymandered...."); ¶ 69 ("Dr. Tenn does a similar – though incomplete - in-migration and out-migration test at the beginning of his geographic market analysis to assure himself that the relevant geographic market would at least be no bigger than the six-county Chicago region.").

<sup>5</sup> Ex. A, Tenn Report ¶ 85 n.175 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

inpatient admissions from patients who reside within the “North Shore Area.” For example, Dr. Tenn excluded Northwestern Memorial Hospital in his alleged market despite his own data showing that Northwestern Memorial “is ranked first or second in terms of share with respect to the areas covered by many of the Party hospitals, making it the closest competitor to those hospitals.”<sup>6</sup> Dr. Tenn justified this omission by manufacturing a novel distinction between “local” and “destination” hospitals, and then included only those “local” hospitals that compete with *both* Advocate *and* NorthShore in his alleged market.<sup>7</sup>

There is no relevant academic literature or case law even mentioning such things as “destination hospitals,” much less any basis for excluding such hospitals from geographic markets in which the data unambiguously shows them as competitors to the merging parties. Contrary to Dr. Tenn’s analysis, the data here reveals not only that these “destination hospitals” draw substantial patient volume from the North Shore Area, but that the services those patients obtain from the “destination hospitals” are also provided at Dr. Tenn’s “local” hospitals within the “North Shore Area.” In other words, in the eyes of many patients, these so-called “destination hospitals” are simply ordinary hospitals that compete with Advocate and NorthShore for similar services.

It would seem that Dr. Tenn omitted these “destination hospitals” from his market not in spite of, but rather *because of* their fierce and direct competition with Advocate and NorthShore for patients residing in northern Cook and southern Lake Counties. As noted, Northwestern Memorial Hospital is “the closest competitor” to several Party hospitals – a fact not even

---

<sup>6</sup> Ex. D, McCarthy Report ¶ 51; *see also*, Ex. A, Tenn Report, Table 4; Ex. F, Mar. 10, 2016 S. Pugh Dep. Tr. 36:7-37:11.

<sup>7</sup> Ex. D., McCarthy Report ¶ 51. (“In spite of his own share estimates that point to the inclusion of these hospitals as relevant competitors, he excludes them from the relevant geographic market by misleadingly labeling them as ‘destination hospitals’ and further claiming that ‘patients living in the northern suburbs of Chicago generally prefer local treatment at hospitals near where they live.’ Dr. Tenn does not provide sufficient evidence in support of these assertions.”).

Plaintiffs themselves could dispute, having admitted in their own 30(b)(6) deposition that [REDACTED]

[REDACTED].<sup>8</sup> Even according to Dr. Tenn, [REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED].<sup>9</sup> Indeed, Northwestern Memorial has a higher share of inpatient discharges than *all* of the non-Advocate-NorthShore hospitals and at least *a majority* of the party hospitals in Dr. Tenn's "North Shore Area."<sup>10</sup>

Rush University Medical Center and the University of Chicago Medical Center also both draw significant numbers of patients from the alleged North Shore Area.<sup>11</sup> Rush University has

[REDACTED]  
[REDACTED].<sup>12</sup> Additionally, the competitive influence of these major hospital systems, especially Northwestern Memorial, has been growing over time, as seen by increases in the patients diverted to these systems in the North Shore Area from various NorthShore hospitals.<sup>13</sup>

Dr. Tenn further posited without support, and contrary to the facts, that only hospitals that compete with *both* Advocate and NorthShore should be considered competitive constraints.

---

<sup>8</sup> Ex. D, McCarthy Report ¶ 51; *see also*, Ex. A, Tenn Report, Table 4; Ex. G, Mar. 21, 2016 S. Pugh Dep. Tr. 294:10-11 [REDACTED]  
[REDACTED]

<sup>9</sup> Ex. A, Tenn Report, Table 9 [REDACTED] [REDACTED]).

<sup>10</sup> Ex. D, McCarthy Report, Exhibit 10.

<sup>11</sup> [REDACTED]

<sup>12</sup> Ex. D, McCarthy Report ¶ 58; *see also* Ex. E, Mar. 24, 2016 P. Butler Dep. Tr. 33:4-11 [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED].

<sup>13</sup> Ex. D, McCarthy Report, ¶ 20 ("Northwestern's increasing influence in the 'North Shore Area' can also be seen by the extent to which the diversion ratios to Northwestern Memorial have increased over time.").

This approach, too, lacks a basis. In doing so, he ignored hospitals that compete against only one of the two systems today, even though those hospitals will continue to compete against and constrain the merged firm. Because NorthShore’s hospitals have particularly high market shares east of the I-94 corridor, whereas Advocate draws the vast majority of its patients from west of I-94, Dr. Tenn’s position that a hospital *must* have high enough shares to challenge both NorthShore and Advocate arbitrarily narrowed the set of hospitals comprising his relevant market. Tellingly, his so-called “destination hospitals” are among those that actually compete strongly on both the east and west side of I-94.

Dr. Tenn also excluded from his analysis other competitors that actually *do* constrain both Advocate and NorthShore today.<sup>14</sup> Hospitals Dr. Tenn excluded from his proposed market – including (a) Presence St. Francis Hospital, (b) Ann & Robert H. Lurie Children’s Hospital, (c) Rush University Medical Center, (d) the University of Chicago Medical Center, (e) Alexian Brothers Health System, and (f) Centegra Hospital (McHenry) – have the *same* or *higher* share of inpatient discharges from the “North Shore Area” than at least some of the hospitals Dr. Tenn elected to include in his market.<sup>15</sup>

Dr. Tenn observed that the FTC’s Merger Guidelines permit economists to identify a geographic market by the locations of the hospital, rather than the locations of the patients.<sup>16</sup> However, Dr. Tenn’s meandering “connect-the-dots” boundary map and market share calculations together imply that he simply ignored the competitive influence of hospitals located outside his arbitrarily drawn boundary. That is, Dr. Tenn used the “hospital location”

---

<sup>14</sup> Ex. D, McCarty Report ¶ 17 (“[R]eview of relevant documents produced by the Defendants similarly indicates that the ‘North Shore Area’ excludes many hospitals considered by the Defendants to be closer competitors than the ones included in the market.”).

<sup>15</sup> Ex. D, McCarthy Report, Exhibit 10.

<sup>16</sup> See U.S. Department of Justice and Federal Trade Commission’s 2010 Horizontal Merger Guidelines (“Merger Guidelines”), § 4.2.1.

methodology as a justification for ignoring hospitals whose location was inconvenient for his analysis.

The Merger Guidelines actually require otherwise: “competitors in the market are firms with relevant production, sales, or service facilities in that region” and market participants include “all firms that currently earn revenues in the relevant market.”<sup>17</sup> Dr. Tenn completely ignored these clear directives from the antitrust agencies.<sup>18</sup>

## **2. Dr. Tenn Ignores Outmigration and Inmigration.**

Dr. Tenn also ignored basic record evidence related to both “outmigration” and “inmigration.”<sup>19</sup> Notably (and not surprisingly), a substantial amount of the outmigration that Dr. Tenn ignored results in admissions to the so-called “destination hospitals” discussed *supra*, in Part II.A.1, which draw a significant number of patients from the North Shore Area.<sup>20</sup> The facts speak to the arbitrariness of Dr. Tenn’s methodology: Those patients that reside in the “North Shore Area” obtain 27% of their inpatient services at *hospitals outside* of the “North Shore Area.” Further, 40% of the services provided by hospitals within his “North Shore Area” are provided to patients who *reside outside* of the “North Shore Area.”<sup>21</sup> In other words, if the “North Shore Area” is a valid, self-contained geographic market, nobody has told that to Chicago-area patients, who continue to behave otherwise.

---

<sup>17</sup> *Id.* §§ 4.2.1, 5.1

<sup>18</sup> Ex. D, McCarthy Report ¶ 18 (“The proposed merger cannot be presumed to enhance market power under the Horizontal Merger Guidelines. Dr. Tenn’s estimates of shares and concentration measure are based on a flawed definition of the relevant market, as discussed earlier.”).

<sup>19</sup> Ex. D, McCarthy Report ¶ 54 (discussing patient migration).

<sup>20</sup> Merger Guidelines, §5.1 (“All firms that currently earn revenues in the relevant market are considered market participants.”); *see also*, Ex. A, Tenn Report ¶ 85 (“[REDACTED] [REDACTED] [REDACTED] [REDACTED]”).

<sup>21</sup> Ex. D, McCarthy Report, ¶ 71; Ex. A, Tenn Report, ¶ 107.

By failing to account for these undisputed facts about the Chicago marketplace, Dr. Tenn's opinions do not meet the threshold requirements of Federal Rule of Evidence 702(b) which require that an expert's opinion be based on "sufficient facts or data" and that "the expert has reliably applied the principles and methods to the facts of the case." Moreover, as the *Krik* court explained, a threshold requirement of the admissibility of an expert's opinions under these circumstances is the proper application of their methodology to the facts of the case. 76 F. Supp. 3d at 747. Dr. Tenn's opinions fail to meet this basic standard due to his refusal to consider record evidence.

**B. Dr. Tenn's Report Does Not Follow the Methodology Espoused by the FTC on How to Assess the Competitive Effects from the Merger.**

The Court should also exclude Dr. Tenn's competitive effects analysis because "the reasoning [and] methodology underlying" his report are not "scientifically valid" and cannot be "properly . . . applied to the facts in issue." *Daubert*, 509 U.S. at 592-93. Dr. Tenn's theories are both novel and unsupported, which are black letter law grounds for the Court to exclude his report. *See Chapman*, 297 F.3d at 688.

Dr. Tenn predicted in his report that a merger between Advocate and NorthShore would result in higher prices for general acute care inpatient services in the North Shore Area.<sup>22</sup> According to Dr. Tenn, the merger would provide the merged Advocate-NorthShore with market power and thereby equip them to obtain higher rates through increased bargaining leverage with health plans. However, Dr. Tenn simply assumed that Advocate-NorthShore would have the very bargaining power that is necessary for his model to generate price effects from the proposed merger. In other words, he arrived at his conclusion by assuming his own premise. The Court should not even consider such baseless testimony.

---

<sup>22</sup> Ex. A, Tenn Report ¶ 182 & Table 15.

Dr. Tenn employed only a truncated version of the FTC’s hospital merger simulation (“HMS”) model. His methodology differed sharply from how the FTC and other healthcare economists ordinarily conduct this modeling.<sup>23</sup> Typically, an economist executes this model in two parts: first (*i.e.*, in “Stage 1”), by estimating patients’ “willingness-to-pay” (“WTP”) for inpatient hospital services, which is a measure of these hospitals systems’ bargaining leverage *vis-à-vis* commercial payers (such as BlueCross or Cigna) with which they bargain, for numerous hospital systems located in the geographic area of the proposed merger.<sup>24</sup> Then (*i.e.*, in “Stage 2”), economists use a regression analysis to estimate the relationship between that “WTP” and overall hospital system pricing observed at these hospital systems.<sup>25</sup> The estimated relationship between “WTP” and hospital prices is assumed to represent the bargaining power “split” between hospital systems and commercial payers. This two-step methodology “is the ‘standard practice’ for predicting the price effects of hospital mergers,” as stated by the FTC and FTC economists themselves.<sup>26</sup>

Stage 2 Analysis is a crucial aspect of this method because the effect of the proposed merger is calculated as the increase in “WTP” (*i.e.*, bargaining leverage) resulting from the merger multiplied by the *empirically estimated* effect of “WTP” on hospital system prices (*i.e.*, bargaining power of hospital systems). But Dr. Tenn failed to conduct a Stage 2 analysis at all.

---

<sup>23</sup> Ex. C, Eisenstadt Report ¶8 (“The oligopoly simulation model used by Dr. Tenn to estimate upward pricing pressure does not accord with published FTC practice on the estimation of the price-effects of hospital mergers.”)

<sup>24</sup> Ex. C, Eisenstadt Report ¶ 72 (The FTC’s HMS model is executed in two parts.”); ¶ 74 (“Rather than estimating Stage 2 using the approach recommended by the FTC”); *see also*, Capps, Cory, David Dranove, and Mark Satterthwaite, “Competition and Market Power in Option Demand Markets.” RAND Journal of Economics 34(4), Winter 2003, 737-63.

<sup>25</sup> Ex. C, Eisenstadt Report ¶¶ 72-73.

<sup>26</sup> Ex. C, Eisenstadt Report ¶ 73; *see also*, Keith Brand & Christopher Garmon, “Hospital Merger Simulation.” American Health Lawyers Association (2014), pgs. 12-13; Farrell, Joseph, David J. Balan, Keith Brand, and Brett W. Wendling.. “Economics at the FTC: Hospital mergers, authorized generic drugs, and consumer credit markets.” Review of Industrial Organization 39.4 (2011): 271-296; Carlson, Julie A. et al. “Economics at the FTC: Physician acquisitions, standard essential patents, and accuracy of credit reporting.” Review of Industrial Organization 43.4 (2013): 303-326, at. 311.

Additionally, even though Stage 2 of the HMS analysis requires an economist to analyze claims data in order to determine respective bargaining strength,<sup>27</sup> Dr. Tenn openly admitted that [REDACTED]

[REDACTED]

**C. Dr. Tenn’s Novel Model Employed to Determine Competitive Effects is Contrary to the Bargaining Model He Employed Elsewhere.**

In skipping Stage 2, Dr. Tenn abandoned the accepted FTC approach and ignored what is known as the “Nash Bargaining” model (*i.e.*, the “common model that describes the outcome of a negotiation between a buyer and seller.”).<sup>29</sup> Instead, Dr. Tenn used an oligopoly or “price-setting” model.<sup>30</sup> This model assumes that Advocate-NorthShore would have *all* of the bargaining power post-merger – the very metric that a Stage 2 analysis sets out to empirically calculate.<sup>31</sup> Dr. Tenn then arbitrarily “truncated” or reduced the price increase predicted by his model,<sup>32</sup> claiming thereby to be “conservative” in his prediction of price effects. However, by failing to directly estimate hospitals’ bargaining power in the first instance, he could not possibly

---

<sup>27</sup> Ex. C, Eisenstadt Report ¶ 73 (“Stage 2 measures the relationship between prices negotiated between hospital systems and payers and hospital system-level WTP, which is a measure of the hospital system’s bargaining leverage in its negotiations with payers.”).

<sup>28</sup> Ex. H, Tenn Dep. Tr. 225:18-19 ([REDACTED])

<sup>29</sup> Ex. C, Eisenstadt Report ¶ 82 (“the very reason *why* Stage 2 of the HMS model is executed is to account for the expected sharing of surplus between the merged hospital system and a health plan of the gains created from the exercise of potential hospital market power.”).

<sup>30</sup> Ex. A, Tenn Report ¶ 177; Ex. C, Eisenstadt Report ¶ 82.

<sup>31</sup> Ex. C, Eisenstadt Report ¶ 8 (“To simulate the price-effects of the transaction, Dr. Tenn uses an oligopoly simulation model”); *see also id.* ¶ 82 (“[C]ontrary to accepted economic principles, however, the merger simulation model used by Dr. Tenn to estimate price effects totally *abandons* the Nash Solution and assumes instead that *all* gains from increased market power are appropriated by the merged hospital.”) and Martin S. Gaynor et al., A Structural Approach to Market Definition with an Application to the Hospital Industry, 61 J. INDUS. ECON. 243 (2013), pg. 261 (“[T]he differentiated Bertrand price equilibrium is a special case of the Nash bargaining equilibrium where the hospital possesses all the bargaining power and there is no price discrimination.”)

<sup>32</sup> Dr. Tenn arbitrarily ignores “higher-order” effects when calculating price effects from his oligopoly model, which has the effect of somewhat reducing the predicted price effect of the proposed merger compared to a “non-truncated” analysis. *See* Ex. A, Tenn Report ¶ 181 ([REDACTED])

([REDACTED]) However, he provides no estimate of how much this assumption affects his prediction of price effects nor any basis whatsoever for this assumption.

know whether his estimates of the price effects of this merger are “conservative” compared with its *actual* price effects. In other words, much like in his geographic market analysis, Dr. Tenn subtly incorporated into his modeling the very fact he endeavored to prove. He purported to show that the merged firm possesses the bargaining power to obtain a price increase by simply *assuming* that the merged firm has enough bargaining power to obtain a price increase.

Thus, Dr. Tenn’s model is outcome-determinative; it was only used because the methodology espoused by the FTC – running Stage 2 to estimate the relationship between that “WTP” and overall hospital system pricing – results in an outcome contrary to his desired results, one that shows there are *no likely* anticompetitive effects.<sup>33</sup> Dr. Tenn claimed that his results are “similar” to those that would be obtained through the Nash Bargaining model, but the reality is precisely the opposite. Had Dr. Tenn relied on the standard methodology described above, he would have found that his formula for an expected price increase yields an extremely different result from what would be obtained through a Stage 2 analysis.<sup>34</sup> For example, Dr. Eisenstadt actually performed a Stage 2 analysis, and concluded that the worst-case-scenario price increase was at most *one-fifth* the size of what Dr. Tenn predicts, and was not even statistically significant.<sup>35</sup>

Dr. Tenn justified the use of his own unproven methodology by citing to a working paper prepared by Haas-Wilson & Garmon to show that his results coincide with a specific version of the Nash Bargaining model in certain circumstances.<sup>36</sup> According to Dr. Tenn, his model is

<sup>33</sup> Ex. C, Eisenstadt Report ¶¶ 104-119.

<sup>34</sup> Ex. C, Eisenstadt Report ¶ 119 (“The results of my Stage 2 estimation are consistent with a conclusion that counter to the FTC’s and Dr. Tenn’s core theory payers in the Chicago area have most of the bargaining strength.”).

<sup>35</sup> Ex. C, Eisenstadt Report ¶¶ 76, 111.

<sup>36</sup> Ex. A, Tenn Report ¶ 177 n.296 citing Deborah Haas-Wilson & Christopher Garmon, *Two Hospital Mergers on Chicago’s North Shore: A Retrospective Study*, FTC BUREAU ECON. (2009) (Working Paper No. 294).

“equivalent” to the accepted bargaining model. But the unusual assumptions underlying the Haas-Wilson & Garmon model differ fundamentally from those stated by Dr. Tenn in his report.<sup>37</sup> More troubling, Dr. Tenn relied on a working paper version instead of the peer-reviewed final version of the paper. Dr. Tenn tried to excuse this approach by claiming that the working paper in question was “[REDACTED].” Ex. H, Tenn Dep. Tr. 334:19. But the *final*, peer-reviewed version of that paper excluded the very equivalence that Dr. Tenn relied on.<sup>38</sup> This strongly implies that a peer review of the only paper to consider using Dr. Tenn’s methodology actually resulted in a *rejection* of the methodology.

Dr. Tenn’s competitive effects analysis is novel; it does not produce the same results as the test commonly accepted in his field (*i.e.*, the merger-simulation approach described above and Nash Bargaining model); and his own methodology has not been accepted by the relevant scientific community. Because Dr. Tenn’s competitive effects analysis relies on novel, unsupported theories, the Court should exclude his testimony. *See Chapman*, 297 F.3d at 688.

## CONCLUSION

For the reasons explained above, Defendants Advocate Health Care Network, Advocate Health and Hospitals Corp. and NorthShore University HealthSystem respectfully request that the Court grant their Motion to Exclude the Testimony and Report of Steven A. Tenn, Ph.D.

---

<sup>37</sup> The Hass-Wilson & Garmon model, which was presented in the authors’ retrospective analysis of the ENH-Highland Park merger, predicts the theoretical price increase associated with a merger when merged hospitals are *required* to bargain separately with commercial payers, which is a situation unique to the FTC’s post-merger remedy in their retrospective of the ENH-Highland Park hospital merger. *See* Haas-Wilson & Garmon working paper, at 2-3. Dr. Tenn, however, [REDACTED]

[REDACTED] *See*, Ex. A, Tenn Report, n.245.

<sup>38</sup> *See generally*, Deborah Haas-Wilson & Christopher Garmon, *Hospital Mergers and Competitive Effects: Two Retrospective Analyses*, 18 INT’L J. ECON. BUS. 17 (2011).

Dated: April 1, 2016

/s/ David E. Dahlquist \_\_\_\_\_.  
David E. Dahlquist, Esq.  
Michael S. Pullos, Esq.  
Winston & Strawn LLP  
35 W. Wacker Drive  
Chicago, IL 60601  
Phone: (312) 558-5660  
Fax: (312) 558-5700  
Email: DDahlquist@winston.com

***Counsel for Defendant NorthShore  
University HealthSystem***

Respectfully submitted,

/s/ Robert W. McCann \_\_\_\_\_.

Robert W. McCann, Esq.  
Kenneth M. Vorrasi, Esq.  
John L. Roach, IV, Esq.  
Jonathan Todt, Esq.  
Drinker Biddle & Reath LLP  
1500 K Street, N.W., Suite 1100  
Washington, D.C. 20005  
Phone: (202) 230-5149  
Fax: (202) 842-8465  
Email: Robert.McCann@dbr.com

John R. Robertson, Esq.  
Leigh Oliver, Esq.  
Hogan Lovells US LLP  
555 13th Street, NW  
Washington, D.C. 20004  
Telephone: (202) 637-5774  
Email: roddy.robertson@hoganlovells.com

***Counsel for Defendants Advocate Health  
Care Network and Advocate Health and  
Hospitals Corp.***

**CERTIFICATE OF SERVICE**

I hereby certify that on April 1, 2016 I caused a copy of the foregoing Defendants' Motion to Exclude the Testimony and Report of Steven A. Tenn, Ph.D, to be filed and served on all counsel of record for Plaintiffs via electronic mail.

/s/ Robert W. McCann  
Robert W. McCann