United States District Court,
N.D. Texas, Fort Worth Division.

HIGHMARK, INC,
Plaintiff.
v.
ALLCARE HEALTH MANAGEMENT SYSTEMS, INC,
Defendant.

Civil No. 4:03 CV-1384-Y

Dec. 19, 2006.

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Court-Filed Expert Resumes

SPECIAL MASTER'S REPORT AND RECOMMENDED DECISIONS ON CLAIM CONSTRUCTION

DON W. MARTENS, Special Master.

I. *INTRODUCTION*

Plaintiff Highmark, Inc. ("Highmark") filed this action against Allcare Health Management Systems, Inc. ("Allcare") seeking declaratory judgment of invalidity and noninfringement of U.S. Patent No. 5,301,105 ("the '105 patent"). Allcare filed a counterclaim alleging infringement of the '105 patent.

Allcare filed an Amended Motion for Claim Construction. That amended motion was referred to me, Don W. Martens, as Special Master for construction of disputed terms of Claims 1, 52, 53, and 102 of the '105 patent.

The claim construction issues were fully briefed by the parties. A *Markman* hearing was held on November 8, 2006. At the hearing, oral argument was presented by counsel for both parties.

The meaning of numerous claim terms has been raised in the Joint Claims Construction Statement ("JCC") (A462-515, Doc. # 133) FN1, the briefs of the parties and Highmark's Proposed Order Regarding Claim

Construction (H626-634). Following the oral hearing, at my request, the parties each submitted a post-hearing statement identifying those claim terms that still need to be construed. Allcare's Post Hearing Statement ("APH"); and Highmark's Post Hearing Statement ("HPH").FN2

FN1. The Joint Claims Construction Statement will be cited as "JCC---" AUcare's Appendix in support of its motion will be cited as "A---" and Highmark's Appendix in support of its opposition as "H---".

FN2. Copies of APH and HPH are attached to the Record of Materials and Evidence considered by Special master, filed herewith.

I have reviewed and considered all of the arguments, evidence and submissions of the parties and provide the following report and recommended decisions.

II. *BACKGROUND*

A. *The* '105 Patent

The '105 patent was issued to Desmond D. Cummings on April 5, 1994. The invention relates to a managed health care system that uses a computer system to interconnect and integrate interaction of the patient, health care provider, bank or other financial institution, insurance company, utilization reviewer, and employer so as to include within a single system each of the essential participants to provide patients with complete and comprehensive pretreatment, treatment and post-treatment health care and payment for such health care. ' 105 patent, cover page, Abstract.FN3

FN3. Citations to the patent are to the cover page, or to column and line of the specification, or to Fig. of drawing.

Referring to Fig. 1 of the patent, a computer central processor 10 is the heart of the operational system. The central processor is connected to memory banks 16, 17, 18, 19, 20, 21 and 44 which store various information and data. ' 105 patent, 4 :30-39. These memory banks may be a part of the processing system 10 or may be separate data banks that are accessible to the processing system. The central processor is connected to a plurality of remote physician office terminals, 11a-11c, each located in the office of a respective physician or other health care provider. The central processor also is connected to other participants in the system such as banks 27 and insurance companies 24a-24c. Id. 5:49-6:2.

The central processor memory banks include information identifying each potential patient having the required insurance, or otherwise being authorized to use the system. Id. 8:3-14. When a patient visits a physician or other health care provider, the patient's identification is entered into the system through that physician's remote physician office terminal 11a and is communicated to the central processing system for verification of the patient's authorization to participate in the health care system. Id. 8:9-14; 8 :57-9 :12; boxes 100-102, Fig. 5. The central processor accesses appropriate insurance information such as a list of treatments and authorized costs from an insurance file memory bank 18. Id. 9:26-33, box 104, Fig. 5; 4:53-62.

The physician may use an optional diagnostic smart system to assist in making a diagnosis. To do so, the

physician enters, through the physician's office terminal, patient symptoms and other data which will assist in making a diagnosis and identifying recommended treatment. Id. 9:53-60, box 111, Fig. 5. The central physician's file 44 has stored in its memory identification of the most commonly encountered diseases and other ailments, together with the symptoms usually associated with them. Id. 6:55-59. When the physician enters the observed symptoms and requests a diagnosis, the central processing system obtains the necessary data from the physician's file 44 and prepares a list of the most likely medical conditions corresponding to the observed symptoms, together with the generally approved or recommended treatment protocols. Id. 6:59-67, box 112, Fig. 5. Thus, the physician is assisted by the processing system in identifying the most likely causes of the health problem. The physician then completes his or her diagnosis, and determines a proposed treatment. Id. 9:60-65.

Having made the diagnosis, with or without the assistance of the diagnostic smart system, the physician then enters into the system data identifying the proposed treatment. Id. 11:32-36, box 127, Fig. 6. The system memory banks include information identifying treatments and procedures for which utilization review is required. Id. 4:53-62. The processing system compares the proposed treatment with recommended protocols stored in the insurance file 18 and physician file 44 and indicates whether the proposed treatment meets applicable criteria of the insurer. Id. 10:3-8; 11 :37-40, box 128, Fig. 6. If the treatment requires utilization review or does not meet the applicable criteria, there ensues a discussion with a nurse and sometimes with the Medical Director. Id. 11:44-55. If the treatment is approved ("Yes" between box 128 or 132, Fig. 6), the physician proceeds with treatment. After treatment the physician enters into the system that the visit is completed. Id. 13:24-30, box 159.

The system then makes provision for transfer of approved sums from the bank to the health care provider. Id. 13:44-52.

Fig. 3 illustrates an alternative embodiment which functions similarly to that of Fig. 1 discussed above, but differs in that the physician file 44, and some other data files, may be located in the separate physician offices in a personal computer ("PC"), instead of at the central location with the central processor; and some of the data processing is done at the separate physician's offices in a microprocessor 60 which communicates with the central processor through a conventional modem 62. Id. 7:39-60.

B. *Prosecution History of* '105 Patent

The application for the '105 patent was filed in the U.S. Patent and Trademark Office ("PTO") on April 8, 1991. The original application included 102 claims. A68-95.

A Disclosure Statement was filed on July 29, 1991 making of record five prior issued patents and one prior publication. A109-112.

In an Office Action dated January 8, 1993, all claims were rejected by the Supervising Patent Examiner at the PTO assigned to the application. A113-119. All claims were rejected on formal grounds as indefinite and vague under 35 U.S.C. s. 112. No rejection based on prior art was made, and the Examiner stated that all claims would be allowable if re-written or amended to overcome the rejection under Section 112. A117.

On June 8, 1993, the applicant filed a response to the Office Action and amended all of the claims, including the claims which issued as Claims 1, 52, 53, and 102, to overcome the rejection as indefinite and vague. A249-269.

On September 9, 1993, the Examiner and counsel for the applicant had a telephone interview, resulting in an Amendment filed on September 14, 1993. A271-276 (Amendment), A277 (Interview Summary Record). Minor spelling and grammatical corrections were made to Claims 52 and 102. No amendment was made to Claims 1 or 53 (Application Claim 54).

All 102 claims were then allowed (A278-79) and the patent issued on April 5, 1994.

C. *General Principles of Claim Construction*

Claim construction is an issue of law. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed.Cir.1998) (en banc); Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir .1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

The Court must look to the language of the claims to determine what "the applicant regards as his invention." 35 U.S.C. s. 112, para. 2; Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (*en banc*). Claim construction begins with the language of the claims. Vitronics Corp. v. Conceptronic, Inc. 90 F.3d 1576, 1582 (Fed.Cir.1996); NTP, Inc. v. Research in Motem, Ltd., 418 F.3d 1282, 1299 (Fed.Cir.2005). "The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims." Ferlep v. Brinkman Corp., 418 F.3d 1379, 1382 (Fed.Cir.2005). The Court in *Phillips* noted that: "It is a 'bedrock principle' of patent law that 'the claims' of a patent define the invention to which the patentee is entitled the right to exclude." *Id*.FN4

FN4. For conciseness, throughout this section, in quotes from *Phillips*, I will delete the citations by the *Phillips* Court.

The specification describes the invention set forth in the claims. 35 U.S.C. s. 112, para. 1; Phillips, 415 F.3d at 1312. In *Phillips,* the Federal Circuit, *en banc,* thoroughly treated the issue of "the extent to which we should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims." Phillips, 415 F.3d at 1312.

A claim term is generally given the ordinary and customary meaning that the term would have to a person of ordinary skill in the art at the time the patent application was filed. Phillips, 415 F.3d. at 1312-13. The person of ordinary skill in the art is deemed to read the claim term not only in the context of the claim itself, but in the context of the entire patent, including the specification, and with an understanding of its meaning in the art and of any special meaning and usage in the field. Id. at 1313.

In some cases, the ordinary meaning as understood by one skilled in the art may be readily apparent to a lay judge, and claim construction then is little more than application of the widely accepted meaning of commonly understood words. In such cases, general purpose dictionaries may be helpful. Id. at 1314. In many cases, however, claim terms have a particular meaning in the art. The Court then must look to

"those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean."

"Those sources include the words of the claims themselves, the remainder of the specification, the

prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id*.

The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id*. at 1315. "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id*. at 1316.

Sometimes the inventor acts as his own lexicographer and specially defines a claim term in the specification. In that instance, the inventor's definition controls. *Id*. Sometimes the inventor may expressly limit claim scope in the specification. Again, the inventor's apparent intent controls. *Id*.

The prosecution history of the patent consists of the record of the proceedings before the PTO, including the prior art cited during the examination. It is part of the "intrinsic evidence" and should be considered. *Id*. at 1317. It can demonstrate how the inventor understood the invention and whether the inventor limited the invention in the course of the prosecution. *Id*. However, the prosecution history often lacks the clarity of the specification and thus is less useful than the specification. *Id*.

Extrinsic evidence consisting of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries and learned treatises can also be helpful. *Id*. However, extrinsic evidence is less reliable than the intrinsic evidence, consisting of the patent itself and the prosecution history. *Id*. at 1318.

Expert testimony can be useful to provide background on the technology, to explain how the invention works, or to establish that a particular claim term has a particular meaning in the art. "However, conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a Court." *Id*. The Court also should discount any testimony that is at odds with the intrinsic evidence. *Id*.

Dictionaries, especially technical dictionaries, and treatises can also be useful in claim construction. *Id*. As the Court said in *Phillips:*

"(J)udges are free to consult dictionaries and technical treatises at any time in order to better understand the underlying technology and may even rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in (the intrinsic evidence)." 415 F.3d. at 1322-23.

However, dictionaries focus on the abstract meaning of words, whereas the focus in claim construction is on the meaning to one of ordinary skill in the art after reading the entire patent. *Id*. at 1321. It is improper to read a claim term more broadly than its ordinary and customary meaning revealed by the context of the intrinsic record, simply because the broader meaning can be found in a dictionary. Nystrom v. Trex Co., 424 F.3d 1136, 1145 (Fed.Cir .2005).

While the claims must be construed in the context of the specification, it is improper to read a limitation from the specification into the claim. CollegeNet, Inc. v. ApplyYourself, Inc., 418 F.3d 1225, 1231 (Fed.Cir.2005). "If we once begin to include elements not mentioned in the claim in order to limit such claim ... we should never know where to stop." *NTP,* F.3d at 1310.

It is improper to limit a claim to the specific embodiments disclosed in the specification. Even if the patent discloses only a single embodiment, the claims must not be construed as limited to that embodiment. Phillips, 415 F.3d at 1323.FN5

FN5. An exception to this rule applies to claims drafted in a form which subjects them to construction under the provisions of 35 U.S.C. s. 112, para. 6, as will be discussed below.

The line between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be very difficult to apply in practice. *Id*. at 1323. However, the focus must be on how a person of ordinary skill in the art would understand the claim terms. *Id*.

In the final analysis, "there is no magic formula or catechism for conducting claim construction." *Id*. at 1324. The Court can consult the various relevant sources in any sequence it chooses, so long as the appropriate weight is attached to those sources and those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.

III. *THE TRIGON CLAIM CONSTRUCTION RULINGS*

In a prior action, Allcare alleged infringement of the ' 105 patent by Trigon Healthcare, Inc.. *Allcare Health Management System, Inc. v. Trigon Healthcare, Inc.*, C.A. No. 02-756-A (E.D.Va .). On February 3, 2003, Chief Judge Claude M. Hilton signed an Order and Memorandum Opinion in that action construing certain terms found in the claims of the '105 patent ("the *Trigon* rulings"). A430-454.

In this case, Highmark moved to strike all references made by Allcare to the *Trigon* rulings in support of Allcare's proposed claim construction. This Court denied the motion to strike. (Doc. # 245, June 15, 2005, A455-461). This Court held that, in reviewing motions and issues presented before it, the Court may look to previous rulings within, or outside, the Fifth Circuit. "(I)n fact the very essence of our judicial system requires such a process." Id. at 457. The Court ruled that the *Trigon* rulings should not be given precedential weight, but they should be evaluated for persuasive effect. The Court and the Special Master are free to agree or disagree, wholly or in part, with the *Trigon* rulings. Id. at A460-61, fn. 7.

Highmark here argues that the *Trigon* rulings are incorrect under the law applicable to claim construction as set forth by the Federal Circuit in *Phillips*. *Phillips* was decided after the *Trigon* rulings, and after this Court's Order regarding the *Trigon* rulings. Highmark contends that, in view of *Phillips*, the Special Master and this Court should not consider the *Trigon* rulings at all in construing the claims of the '105 patent.

Allcare does not contend that this Court is barred by *res judicata* or collateral estoppel from coming to a different decision from the *Trigon* Court. Allcare recognizes that this Court is free to make a decision *de novo*, but contends that the *Trigon* rulings must be considered for their persuasive effect. *Markman* hearing transcript ("Hrg.Trans.") at 16-17.

This Court's Order of June 15, 2005 correctly decided that the *Trigon* rulings should be evaluated for persuasive effect, and *Phillips* does not change that. My recommended claim construction will be based on a *de novo* review, but the *Phillips* decision, and other subsequent decisions cited by Highmark, will be part of the evaluation of the persuasive effect, if any, to be given to the *Trigon* rulings on each claim limitation individually.

Where the construction in the *Trigon* Rulings was based on a stipulation of the parties to that case rather than an independent review by Judge Hilton, I will not discuss the *Trigon* ruling and will not give it any weight.

IV. *PERSON OF ORDINARY SKILL IN THE ART*

"The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." Phillips, 415 F.3d at 1313. Generally, the "art" is determined from the field of technology of the invention. *See* Multiform Desiccants, Inc. v. Medzam Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998).

The '105 patent relates to "managed health care systems" ('105 patent, 1:4) that utilize a computer processing system to interconnect and integrate interaction of the patient, health care provider and various other participants all within a single system. Thus, the '105 patent relates to the application of computer processing to managed health care systems.

A person of ordinary skill in the art is a hypothetical person. The inventor may or may not be one of ordinary skill in the art. *See,* Kimberly Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1454 (Fed.Cir.1984). However, Highmark contends that, in this case, someone with the background of the inventor, Desmond Cummings, Jr., Ph.D., at the time of the invention is the appropriate standard for a hypothetical person of ordinary skill in the art of the '105 patent. Dr. Cummings had no degree in computer science or health care. He was not a medical doctor. His Ph.D. is in theology. At the time of the application for the '105 patent was filed, he had been a marketing and planning executive in the health care management field for about seven years and had been Chief Executive Officer of a medical center for several years. His responsibilities did not include development of information systems. A659-677. He had six to eight credit hours in studying computer programming language, and in the process of those studies, he produced some computer flow charts. He also wrote some computer programs and was involved with others in the design of a flow chart for one computer program. H422-26.

Highmark has not specifically defined the level of skill of one of ordinary skill in the art, but from its summary of Dr. Cumming's skill, apparently Highmark contends that one of ordinary skill in the art of the '105 patent need have no educational degree in either computer science or health care, but would have several years experience in health care management and some limited experience in designing flow charts for computer systems. Highmark contends that no extensive skill in either computers or health care is necessary to understand the patent.

Allcare contends that a person of ordinary skill in the art of the '105 patent is an individual who works in the field of developing and/or improving managed health care systems, has at least one year of experience in managed health care, and a B.S. in computer science or its equivalent. Allcare offers no direct evidence to support those specific requirements but relies on the need for one of ordinary skill to understand managed health care concepts such as "utilization review" and "pre-certification" and computer system concepts such as "smart systems," "conventional communication paths," "conventional data input terminals," and the current state of the art of personal computers. Hrg. Trans. at 37-38.

In view of the limited record on this issue, I recommend that, for purposes of these claim construction rulings, a person of ordinary skill in the art would have sufficient knowledge of managed health care

systems to understand how the various participants interact with each other, and sufficient knowledge of computer systems to enable design of flow charts for the interconnection and interaction of the various computer system components, the various participants in the managed health care system, and the functions each component or participant will perform.

V. *GENERAL COMMENTS*

Many terms for which construction is sought by the parties are non-technical terms used everyday by non-technically trained judges and jurors. For many of these terms, there is nothing in the intrinsic record indicating they are used in the patent with other than their common and ordinary meaning to the ordinary person with no skill in the art. I have construed those claim terms. However, in preparing jury instructions, the parties and the Court should consider whether construing them for jury will add confusion, rather than reducing it.

Throughout this report, multiple individual terms or phrases which form part of a claimed element are construed. Complex sentence structure and confusion sometimes result from literally combining the definitions together into a comprehensive construction for the entire element, just as joining together dictionary definitions for a number of words in a sentence would be cumbersome. Thus, I recommend that the jury be given a glossary of claim terms and definitions, and that definitions be substituted into the claim element itself only where that can be done in a comprehensible manner. See my recommended construction of "data symbolic of patient symptoms for tentatively identifying a proposed mode of treatment" in 52(c) as an example where some definitions were included in the body of the construction, and others were added at the end as a specific glossary for that claim term. Alternatively, the glossary could be separate. I suggest these are matters to be worked out in preparing jury instructions.

My intent here is to construe all of the claim terms indicated by the parties to still be in dispute in their respective Post Hearing Statements. Sometimes I have separately construed all of the parts of a disputed phrase, without combining the resulting definitions, other times I have construed the entire phrase without separately construing its parts. Hopefully, I have provided adequate construction for the Court to instruct the jury. I will do it differently if the Court requests.

In my construction of individual elements, I cite to stipulations that I consider relevant to my construction analysis. Not citing other stipulations is not intended to indicate that uncited stipulations should be disregarded by the Court. I simply did not review or cite them because I did not consider them necessary to my analysis of disputed claims.

VI. *CLAIM 1*

A. *Preamble:*

"A comprehensive health care management system comprising;"

A preamble often is only environmental, and is not a limitation of the claim. However, if limitations in the body of the claim derive antecedent basis from the preamble, or the preamble is necessary to give life, meaning and vitality to the claim, then the preamble limits the claim. NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1307 (Fed.Cir.2005).

Stipulations

The *Trigon* rulings found the preamble not to be a limitation of the claim, and so did not construe it. A433.

The parties here have stipulated that:

i) the preamble is a limitation of Claim 1 because it provides the antecedent basis for the phrase "in said system" of claim element 1(d); JCC1/A462,

ii) "health care" means "maintaining and restoration of health by the treatment and prevention of disease, especially by trained and licensed professionals (as in medicine, dentistry, clinical psychology and public health); *id.*, and

iii) "comprising" means "including" and is an open-ended transitional phrase according to well-established patent doctrine. JCC2/A463.

Allcare proposes the following meaning for "comprehensive health care management system":

"The integrated interconnection and interaction of the patient, health care provider, bank or other financial institution, insurance company, utilization reviewer/case manager and employer so as to include within a single system each of the essential participants to provide patients with complete and comprehensive maintaining and restoration of health by the treatment and prevention of disease, especially by trained and licensed professionals and payment therefor." APH3.

Highmark would add to Allcare's proposed construction the introductory clause "a comprehensive health care management system ... including." It is not generally a preferred practice to define a term by quoting it and adding additional elements. Moreover, in claim construction, it gives the appearance of adding limitations from the specification rather than defining the claim term. Thus, the introductory clause proposed by Highmark is redundant or improper.

Highmark would also add the phrase "large in scope" as a construction of "comprehensive." The definition proposed by Allcare, and by Highmark, includes recitation of the various elements that make the health care management system comprehensive. The patent specification at 1:54-60 specifies various elements of the health care management system, "so as to include within a single system each of the essential elements to provide patients with complete and comprehensive health care." Those essential elements are recited in each parties' definition. Thus, the "large in scope" language Highmark proposes to add is redundant.

Highmark would substitute "elements" for "participants." The former term is used in the description at 1:59 and the latter in the Abstract on the cover page of the '105 patent. Either seems suitable and both are consistent with the specification. I recommend "elements" as a broader description.

The Abstract of the patent states that the system is both "integrated and comprehensive." '105 patent, cover page. Claim 1 recites in the preamble that the system is "comprehensive." Claim 102, on the other hand, recites that the system is "integrated." Thus, the comprehensiveness should be emphasized in the construction of the preamble of Claim 1, whereas the integration should be emphasized in constructing of the preamble of Claim 102.

Both parties submitted definitions of "comprehensive health care management system" that define the' system as both integrated and comprehensive. ("The integrated interconnection ... to provide patients with ...

comprehensive maintaining and restoration of health....")

The specification uses the terms "integrated" and "comprehensive" in a somewhat overlapping manner, but it appears that "comprehensive" is used generally to indicate that the system has many participants and functions, while "integrated" is used generally to indicate that those participants and the processing components interact to work as a unit.

Therefore, it is recommended that the preamble of Claim 1 is a limitation of the claim, and that it be construed as:

"A system combining the patient, health care provider, bank or other financial institution, insurance company, utilization reviewer/case manager and employer so as to include within a single system each of the essential elements to provide patients with complete and comprehensive maintaining and restoration of health by the treatment and prevention of disease, especially by trained and licensed professionals and payment therefor, including:"

B. *Claim Element 1(a):*

"input means for entering data identifying each of a predetermined plurality of persons"
<div align="center">***Stipulations***</div>

The parties have stipulated that:

i) Element 1(a) is a "means-plus-function" element, and is to be construed under the provisions of 35 U.S.C. s. 112, para. 6 (" s. 112-6"); JCC3/A464, FN6

FN6. Neither party contends that the claim term "input means" is sufficient to describe to one of ordinary skill in the art a structure for performing the claimed means. Such a description of structure would remove the claim element from s. 112-6. Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996).

ii) "input means" is a physician office terminal; however, the parties disagree as to the proper scope and meaning of such physician office terminals; JCC3/A464,
iii) at least one of the functions of such "input means" is to "enter factual information into the comprehensive health care management system of the preamble for individuals who are members of a pre-established group"; *Id*.

iv) " *data identifying ... persons* " is "factual information, such as an identification number, establishing or representing the identity of each of a predetermined plurality of persons"; *Id*.

v) " *data* " is "an item or items of information"; *Id*.

vi) the standard dictionary definition of " *identify* " is "to recognize as being; establish the identity of someone or something"; *Id*.

vii) the dictionary definition of the word " *each* " is "being one of two or more considered individually; every"; JCC4/A465

viii) The phrase " *a predetermined plurality of persons* " means "a group of two or more persons determined in advance"; *Id* .

Principles of Construction of Means-Plus-Function Claim Elements

35 U.S.C. s. 112, para. 6 (" s. 112-6") provides:

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and **such claim shall be construed to cover the corresponding structure,** material, or acts **described in the specification** and equivalents thereof." (Emphasis added)

In construing means-plus-function claim limitations, under s. 112-6, a Court must first identify and construe the particular function claimed, and then must identify the "corresponding structure" described in the specification. 35 U.S.C. s. 112, para. 6; Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376 (Fed.Cir.2000).

Construction of the function employs the same claim construction rules as for claim terms not governed by s. 112-6. Cardiac Pacemakers, Inc. v. St. Jude Medical Inc., 296 F.3d 1106, 1113 (Fed.Cir.2002). However, identification of the "corresponding structure" is unique to claim elements governed by s. 112-6.

If the applicant chooses to draft a claim in the means-plus-function format permitted by s. 112-6, the claim element does not cover all means for performing the claimed function. It is limited in scope to the means disclosed and equivalents thereof. 35 U.S.C. s. 112, para. 6. Section 112-6 operates to cut back on the type of means which can literally satisfy the claim language. Jonsson v. The Stanley Works, 903 F.2d 812, 819 (Fed.Cir.1990).

A Court's determination of the structure that corresponds to a particular means-plus-function limitation is a matter of claim construction. Atmel Corp. v. Information Storage Devices, Inc., 198 F.3d 1374, 1379 (Fed.Cir.1999). It is not until the structure corresponding to the claimed function is identified that the scope of coverage of the limitation can be measured. Budde, 250 F.3d at 1376.

Function

As element 1(a) is governed by s. 112-6, the first step in construction is to construe the function claimed to be performed by the "input means." The function recited in 1(a) is "entering data identifying each of a predetermined plurality of persons."

" *Each* "

The parties disagree as to the meaning of "each" in the phrase "the identity of each of a predetermined plurality of persons." The predetermined plurality of persons is stipulated to be a group of two or more persons determined in advance. It could be, e.g., persons on the payroll of an organization (see Claim 82), persons subject to worker's compensation (see Claim 84), all of the persons eligible to use the system, or some other group determined in advance. None of the claims here are limited to any particular identified group.

Highmark proposes that "each" means "every one" (Highmark brief 26) or "every one of two or more, considered individually." (HPH4). Allcare proposes that "each" means "being one of two or more considered individually." (APH1). In summary, Highmark contends that "each" means "every one" in the predetermined group while Allcare contends that "each" means "one" person in the predetermined group."

Looking first to the language of Claim 1 itself, and using the common and ordinary meaning of the words, the claim phrase "each of a predetermined plurality of persons," appears on its face to refer to every one of the predetermined plurality of persons, not just to one of them.

While element 1(a) recites entering data for " *each* of a predetermined plurality of persons," element 1(d) recites entering data for " *one* of said predetermined plurality of persons. "Differences among claims can also be a useful guide in understanding the meaning of particular claim terms." Phillips, 415 F.3d at 1314. The use of "each" in 1(a) and "one" in 1(d) is evidence that the applicant distinguished between "each" and "one," and did not intend to use "each" to mean "one." The inventor, Desmond Cummings, confirmed that he considered "each" to mean "all." See Cummings dep. in *Allcare v. Cerner*, p. 56:6-18, H437.

The specification describes "the entry of information for *each* participant into the System." '105 patent, 8:3-4. The participants are authorized and identified "by designees such as authorized personnel within a company personnel department or an appropriate official within an insurance company." Id. 8:5-8. Once authorized, a participant is provided with an appropriate identification such as a magnetically encoded card, which is subsequently used by the system to verify that participant's authorization to participate and to identify his or her records. Id. 8:9-14; 8:57-67; 4:40-44.

When a participant uses the diagnostic and treatment portion of the system, the participant presents his or her identification card to the health care provider. Id. 8:55-9:1; Fig. 5, box 100. The physician's office terminal 11 (Fig.2) is used to enter data identifying that participant.

It is apparent that information identifying all authorized members of the predetermined group must be pre-loaded in the system so that the system can perform the necessary identity check. Information must be entered for "each" member of the predetermined group, and the word "each" is used in the specification and element 1(a) to mean "every one." Every one of the members is entered as an individual, not merely by some generic collective identification such as "employee." On the other hand, when a patient visits a physician's office with an illness only "one" participant's identity is entered, and the word "one" is used in element 1(d) to reflect that and distinguish it from "each."

Thus, the appropriate meaning of "each," in the context of the intrinsic record is "every one, individually," and it is recommended that the claim term "each" be so construed.

Highmark argues that the specification at 8:3-5 describes entry of participants through the physician office terminal which would be used to enter information only about those participants who visit that physician's office. Highmark contends that is not a "predetermined group" as claimed. Hrg. Trans. 74-82. Allcare agrees that the specification at 8:3-5 is describing entry of information through the physician's office terminal, and contends that requires a special definition of "each." Hrg. Trans. 231-37. Those contentions will be discussed in more detail in relation to Claim 102 below.

Element 1(a) specifies that the claimed entry of data is through the "input means," i.e., the physician's office terminal. But element 1(a) is a means-plus-function element. It is apparent that the physician's office

terminal has "means for" entering information for every participant. If not all of those eligible participants ever actually visit that physician, the physician's office terminal still has "means for" entering their identification if they ever do visit. Thus, the recommended construction does read on the disclosed physician office terminals.

Structure

Having construed the function, the next step in a s. 112-6 analysis is to identify the disclosed structure which is described as performing that function, i.e. the "input means." The parties have stipulated that the input means includes a "physician office terminal" but the parties disagree as to the scope and meaning of such physician's office terminals. JCC3 A464.

The specification describes "physician office terminals 11a-11c" which "may be any of a variety of conventional data input terminals." 4:10-14. The physician's office terminal illustrated in Fig. 2 is a so-called "dumb terminal." It uses a keyboard 55 or card reader 54 to input data to a remote central processor 10. It may display on a display window 51, data received from the remote processor, although that received data apparently may be displayed on a monitor 14. The processing capability of the "dumb terminal" is limited to that necessary for the keyboard, card reader, and display to function. It does not analyze the entered data or store or maintain it. Nobel dep. at 170:14-25, A691.

Allcare contends that the statement in the specification that the terminals 11a-11c "may be any of a variety of conventional data input terminals" ('105 patent, 4:10) would lead one of ordinary skill in the art to conclude that "terminal" included smart terminals that have their own resident microprocessing capabilities. However, when a patent specification discloses a specific structure corresponding to the means and also indicates only generally that other structures may be used, the "corresponding structure" described in the specification is limited to the disclosed specific structure. Fonar v. General Electric Co. 107 F.3d 1543, 1551-52 (Fed.Cir.1997); Atmel Corp. v. Information Storage Devices, Inc. 198 F.3d 1374, 1380-82 (Fed.Cir.1999).

Allcare also relies on the Valentino patent No. 4,648,037 (A331-47) as teaching that a terminal can be a PC. In the disclosure statement filed in the prosecution history, Dr. Cummings described the Valentino patent as disclosing a terminal, which Allcare contends is a PC-like workstation. However, s. 112-6 requires that the corresponding structure be described in the "specification." It is not sufficient to rely on structure incorporated by reference in the specification from another patent. Default Proof Credit Card v. Home Depot U.S. A., 412 F.3d 1291, 1301 (Fed.Cir.2005). For the same reason, it is insufficient to rely on structure from a patent cited in the prosecution history.

Moreover, Dr. Cummings' description of the Valentino patent as disclosing use of "a terminal," is insufficient to establish that the use of the phrase "any of a variety of conventional data input terminals" in the '105 specification would mean to one of ordinary skill in the art that the Valentino structure was being described. *See* Atmel, 198 F.3d at 1380.

"If one employs means-plus-function language in a claim one *must* set forth in the specification an adequate disclosure showing what is meant by the claim language." (Emphasis in original). *Id*. Neither the general reference to conventional terminals, nor the disclosure in *Valentino* is sufficient to describe a personal computer (PC) as "corresponding structure ... described in the specification." s. 112-6.

Highmark contends that the "input means" structure disclosed must be a "dumb" terminal, without substantial processing capability, as distinct from a computer or PC. HPH4; JCCA464.

The specific embodiment disclosed may include structure in addition to that necessary to perform the claimed function. For purposes of s. 112-6 the Court should identify only that structure necessary to perform the claimed function. Micro Chemical, 194 F.3d 1250, 1258 (Fed.Cir.1999). It is improper to impose on the claimed s. 112-6 structure, limitations unnecessary to perform the claimed function. *Acromed*, 254 F.3d 1371 (Fed.Cir.2001).

For example, the terminal of Fig. 2 also includes a telephone 58. The telephone may be convenient but it is not necessary in performing the claimed function of "entering data identifying each of a predetermined plurality of persons" as the performance of that function is described in the specification. Thus, in a s. 112-6 claim construction, it would be improper to specify the structure disclosed for performing the claimed function as including a telephone.

It seems equally improper to impose a negative limitation to the effect that structure not disclosed must be absent, unless the absence of that structure is necessary to performance of the claimed function. Here the *absence* of PC computing capability is not necessary in order to perform the claimed function. One of ordinary skill in the art would know that the disclosed keyboard, card reader, and display window are capable of performing the claimed "entering data" function, whether they are part of a dumb terminal or part of a personal computer.

The disclosed terminal 11 inputs data to a remote central processor, where it is processed. Fig. 1 depicts the physician office terminals 11 a-11c as linked directly to the central processing system 10 for processing of the input data. Fig. 3 shows the physician office terminal linked to a microprocessor 60, which may be located in the physician's office, and in turn is linked to the central processing system 61 and additional computers 61a. Thus, in the Fig. 3 embodiment, some of the processing may be done in a local microprocessor 60. It is apparent from the specification that the "input means" stipulated to be the "physician's office terminal" must have structure, such as a keyboard or card reader, that permits data entry, and must be connected, directly or indirectly, to a remote central processor which performs some (Fig.3) or all (Fig.1) of the data processing. A health care provider uses the terminal at his or her office to enter information into a remote processor.

That some or all of the data processing must occur in the remote central processor is confirmed by element 1(d) which further recites the interaction between the input means and the central processor.

The extrinsic evidence confirms that was the understanding of a "terminal" in the early nineties. The Microsoft Press Computer Dictionary (2d ed.1994), defined a terminal as:

A device consisting of a video adapter, a monitor, and a keyboard. The adapter and monitor and, sometimes, although less commonly, the keyboard are usually combined in one unit. A terminal does little or no computer processing on its own; instead it is connected to a computer with a communications link over a cable. Keyboard input is sent from the terminal to the computer; video output is sent from the computer to the terminal.

H113.

At the hearing, Mr. Kucler, for Highmark, explained,

"(I)t's not ... what is in the structure that defines the difference between a terminal and a personal computer. In fact, it's the functionality." Hrg. Trans. at 64-65.

"Whether or not the terminal includes a microprocessor is not the issue. It's how that microprocessor is used ...

(W)hat has to be present in terms of definition is the fact that it has data that it sends out or data that it can receive, but the processing of that data does not happen on board the terminal." *Id*. at 70-71.

That is consistent with the description in the patent wherein the physician office terminal sends data to the central processor for processing.

However, the addition of processing *capability* to the terminal, e.g., a PC, does not preclude it from functioning as a terminal if the PC is used as an input device to connect a user to a remote computer or processor for data processing.

Thus, it is recommended that the structure described in the specification for performing the function of 1(a) is:

"A physician's office terminal, including a visual display, and a keyboard or card reader, for entry of data and connected, directly or indirectly, to a remote central computer for some or all of the processing of the entered data."

In the *Trigon* rulings, the physician's office "terminal" was construed to not be limited to a dumb terminal, but to also include keyboards and personal computers. A435-36. In my opinion, the best procedure for construing a s. 112-6 means is to identify the structure described in the specification for performing the claimed function, rather than to define what other structures might be covered.

C. *Claim element 1(b):*

"data bank memory interconnected with said input means, said data bank memory including an identification of predetermined procedures requiring utilization review"

Introduction and Stipulations

"Said input means" recited in element 1(b) finds its antecedent in the input means of element 1(a) and thus must be the same "input means" as defined above for element 1(a).

"(P)redetermined" has the same meaning as in element 1(a), i.e. "determined in advance."

The parties have stipulated that:

(i) "a data bank memory" is to be construed as "a database"; JCC5/A466; Hrg. Trans. at 88,

(ii) element 1(b) is to be construed as "a data base that is interconnected with the input means, and that includes within its memory a list of preselected procedures requiring utilization review;" JCC5-6/A466-67,

(iii) "procedures" include both medical and surgical procedures. JCC6/A467, and

(iv) "including" means "taking in as a part; containing." *Id*.

" *Procedures* "

As noted above, the parties have stipulated that the term "procedures" includes both medical and surgical procedures. Highmark urges that it is *limited* to medical and surgical procedures. That was not raised in the Joint Claims Statement, nor in Highmark's Opposition to the Motion for Claim Construction, nor at the hearing. Highmark has not cited any support in the intrinsic or extrinsic evidence for its proposal. Highmark's proposed amendment to the stipulated meaning is not recommended.

" *Interconnected* "

Highmark contends that "interconnected" means "physically, electrically, and reciprocally connected," citing a technical dictionary for "physically" and "electrically" and a non-technical dictionary for "reciprocally." HPH5; JCC6/A467. Allcare contends that "interconnected" means either "joined by a communication path" or "joined physically and electrically." APH1.

The specification discloses that the physician's file 44 and the insurance file 18 each contain the claimed utilization review data. '105 Patent, 4:53-62; 6:67-7:2. In the system illustrated in Fig. 1 those files are shown as connected to the central processor 10 which in turn is connected to the remote physician office terminals 11a-11c. In the system illustrated in Fig. 3, the physician file 44 may be located in the health provider's office and connected to a microprocessor 60 which, in turn, is connected to the physician office terminal 11a. *Id*. 7:50-55.

In the specification, the central processor 10 and the remote physician terminals 11a-11c are described as "interconnected ... by conventional communication paths". *Id*. 4:7-10. The connection for utilization review is described as a "communication link" (*Id*. 2:65-3:2) and the connection between "utilization review" and the central processor as described as a "link" (*Id*. 6:25-28). The terms "link," "linked," and "communication links" are used repeatedly in the specification to describe similar connections between various elements of the systems shown in Figs. 1 and 3 whether the connected elements are in the same location or in different locations. None of the terms "physically" nor "electronically," nor "reciprocally" is used in the specification to describe the connection between any of those various elements.

It is not clear that the link between the physician office terminals and the central processor, is reciprocal. The specification does describe utilization review as a process in which information must flow in both directions between the physician, the central processor and the physician files. *Id*. 9:67-10:17. The physician enters data identifying the proposed treatment, the system compares that with the recommended treatments stored in the physicians file, and notifies the physician of any discrepancy.

However, a monitor 14 or 66 may be located in the physician's office to receive that notification. *Id*. 4:14-21; 7:61-65. Presumably, the utilization review results need only flow back to the monitor and not to the physician terminal. Thus, the link between the central processor and the physician's office terminals may or may not function reciprocally.

As both parties agree that the "interconnection" is "physical and electrical," the Court may choose to adopt

the construction of "joined physically and electronically." However, I am concerned that it may not be apparent to a non-technical person whether the "links" between the geographically remote elements are physical and electrical connections, and it is not discussed in the specification. The proposed construction of "physically and electronically connected" would require further construction of what those two terms mean.

Claim element 1(b) uses the term "interconnected" while element 1(d) uses the term "in communication with." That is an indication that the inventor differentiated between those two terms. However, the only use of the term "interconnected" in the specification indicates that communication links and interconnections are closely related, if not the same. *Id*. 4:7-10. In view of the potential confusion of the jury as to the meaning of "physically and electronically connected," and the absence of any use of those terms in the specification, it is recommended the term "interconnected" in 1(b) be construed to mean "joined by a communication path."

<center>" *Utilization Review* "</center>

The claim recites "identification of predetermined procedures requiring utilization review." The patent specification describes Insurance Company File 18 as including information regarding treatments and procedures for which utilization review is required. *Id*. 4:53-60. The parties disagree as to the meaning of "utilization review."

Utilization review is not expressly defined in the intrinsic evidence. Allcare contends that "utilization review" should be construed as "review of the medical necessity *or* efficiency or quality of patient care, prospectively, concurrently, or retrospectively." (Emphasis added.) Highmark contends that "utilization review" should be construed as "the review for medical necessity *and* efficiency or quality of health care services, either prospectively, concurrently or retrospectively." HPH5 (Emphasis added.)

Allcare also offers an alternative construction of "whether care is medically necessary or appropriate, regardless of whether the review occurs prospectively, concurrently or retrospectively."

The specification describes the system as addressing the question of whether a proposed pattern of treatment is "appropriate." '105 Patent, 9:67-10:2. The physician or staff member enters data identifying the proposed pattern of treatment, which the system compares with the stored recommended treatment protocols and indicates any problem differences. *Id*. 10:3-8.

The specification describes utilization review as facilitating claims compliance with applicable criteria. *Id*. 11:32-33. The physician enters codes to indicate the patient visit, treatment and the like. *Id*. 11:32-36, box 127, Fig. 6. The system compares that information to the information in the Insurance Company File 18 and determines whether the treatment protocol meets "applicable criteria" of the insurer or other payer. *Id*. 6:19-25; 11:37-43, box 129, Fig. 6. If the criteria is not met, a discussion with a nurse ensues. If approval is still not obtained, the matter is referred to the Medical Director, and then possibly referred for peer review. *Id*. 11:44-55, box 128, 131.

The specification discloses that the applicable criteria for utilization review:

"may be tailored to meet criteria established by one or more users of the System. Thus, selected levels of expense, types of procedures, length of expected hospitalization, specific illness, categories of illness or other criteria may be utilized to identify those items for which utilization review is indicated."

Id. 13:61-67.

The specification also discloses utilization review as used for quality control. *Id*. 13:68-14:24. This preferably occurs after treatment. *Id*. 14:4-11. The specification describes cost, treatment results, referral matters, other opinions, and cost effectiveness as factors that may be considered for the quality control aspect of utilization review. *Id*. 14:12-18.

The specification does not specify "medical necessity" or "medically necessary" as one of the applicable criteria used in utilization review. However, the parties agree that it is apparent from the specification as a whole and from the knowledge in the art, that "medical necessity" is a principle criteria. "(A)ppropriate" is used several times in the specification as one of the criteria. The parties agree that the word "appropriate" is not sufficiently definite to be a criteria for utilization review and refers to "medical necessity." Hrg. Trans. at 125-134. The specification does mention "improving efficiency" as a feature of the integration aspect of the invention but not specifically a feature of utilization review. 2:22-27. With respect to utilization review, it does specify "cost effectiveness," (14:15) and other factors which may indicate "efficiency" as a criteria. 13:61-67.

The variability of the examples given, and the references in the specification to the flexibility of the applicable criteria for utilization review cautions against the use of "and," which would require each of multiple criteria. Accordingly, it is recommended that "utilization review" be construed as "review of the medical necessity or the efficiency or the quality of health care services, either prospectively, concurrently, or retrospectively."

The *Trigon* rulings construed "utilization review" to mean "the review of care by a managed care organization to ensure that medical services are medically appropriate or necessary." The *Trigon* Court found that to be the "full and plain meaning" which was broader than cost effectiveness. A432-33. Although that construction is not inconsistent with the intrinsic record, I have chosen a construction also consistent with the intrinsic record, but more nearly reflecting the proposals of the parties.

D. *Claim Element 1(c):*

"payment means"

Element 1(c), is stipulated to be a means-plus-function element governed by 35 U.S.C. s. 112, para. 6. JCC9/A470.

The claimed function is "payment" which is stipulated to mean "the act of paying what is due or accrued." *Id*.

The specification expressly describes automated funds transfer for payment. 3:23-26; 13:43-48; 14:54-57. The parties agree that this refers to what is commonly known as electronic funds transfer ("EFT"), and that a computer programmed to perform EFT qualifies as "corresponding" structure described in the specification for performing the payment function. 35 U.S.C. s. 112, para. 6; Highmark's Opp. at p. 30; Allcare's Reply at p. 9. EFT is a direct electronic transfer by which a sum is deleted from the payer's account and credited to the payee's account. See Kurtyka decl. para. 4d, A603. The parties disagree as to whether structure for automating a check is described as an alternative "corresponding" structure for

performing the claimed "payment" function. Automating a check would be the system automatically printing a computer generated check drawn on the payer's account. See Hrg. Trans. at 108; Singer Decl. para. 8, A533-34.

The specification states that "a variety of medical payment systems" existed in the prior art, and gives U.S. Patent Nos. 4,491,725 (Pritchard) and 4,858,121 (Barber) as examples, (1:14-19). However, structure supporting a means-plus-function claim must appear in the specification. Material incorporated by reference into the specification cannot satisfy the requirement for description in the specification of corresponding structure. Atmel, 198 F.3d at 1380-82. Thus, the disclosures of the Pritchard and Barber patents cannot be relied upon for description of "corresponding structure."

The parties disagree as to whether the medical payment systems of the Barber and Pritchard patents disclose automating the writing of a check. Because the disclosures of Barber and Pritchard, as material incorporated by reference, cannot be relied upon for description of "corresponding structure," this dispute is moot and I have not considered it.

If the title of a publication appears in the specification and the title alone is sufficient to indicate to one skilled in the art the precise structure of the claimed means, the disclosure of that title alone is sufficient for description of corresponding structure. *Id*. In *Atmel,* the Court held that disclosure of the title of an article "... NMOS Integrated Circuits ..." could serve as description of corresponding structure if it was sufficient description of specific structure for one skilled in the art. *Id*.

However, the NMOS Integrated Circuit of *Atmel* apparently was a well-known specific circuit structure whereas "medical payment systems" is much more general than either the NMOS Integrated Circuits disclosed in *Atmel* or the automated funds transfer (EFT) disclosed in the '105 patent. When a patent specification discloses a specific structure corresponding to the "means" in a means-plus-function limitation subject to s. 112-6, and also indicates only generally that other structures may be used, the claim is limited to the disclosed specific structure and its equivalents. Fonar 107 F.3d at 1551-52.

Allcare's expert, Charles J. Singer, testified that computer generated check-writing was the standard medical payment system in the industry *circa* 1990, and that a person skilled in the art would understand the term "a variety of medical payment systems" to mean those computer systems used by medical insurance companies to pay claims for medical services by printing a computer generated check or creating a payment file for EFT. Singer Decl. para. 8, A533-34.

Allcare has stipulated that "payment means" in the claim is a means-plus-function element subject to s. 112-6. Implicit in that stipulation is an admission that "payment means" is insufficient recitation to disclose structure for performing payment. 35 U.S.C. s. 112, para. 6; *see* Greenberg, 91 F.3d at 1583; TurboCare v. General Elec. Co., 264 F.3d 1111, 1121 (Fed.Cir.2001). Mr. Singer does not explain how mere reference in the specification to "a variety of medical payment systems" would disclose both EFT and computer generated check structure to one skilled in the art, but the recitation in the claim of "payment means" would not disclose any structure for payment.

Without an explanation of this apparent inconsistency, Mr. Singer's declaration testimony is not persuasive as to the description in the specification of automating a check.

Moreover, structure described in the specification is "corresponding" structure only if the specification or

prosecution history clearly links or associates that structure to the function recited in the claim. Although prior art structure disclosed in the specification may be "corresponding structure" under s. 112-6, it must be clearly linked to the claimed function. This duty to link is the *quid pro quo* for the convenience of employing s. 112-6. B. Braun Medical, Inc. v. Abbott Laboratories, 124 F.3d 1419, 1424 (Fed.Cir.1997). It is not enough that a structure disclosed may be capable of performing the claimed function. The disclosure must include a "clear link or association" between the disclosed structure and the claimed function. Medtronic, Inc. v. Advanced Cardiovascular Systems, Inc., 248 F.3d 1303 (Fed.Cir.2001).

Here the specification states that "a wide variety of automatic transfer of funds" could be employed. The parties agree that "automated transfer of funds" means EFT. The specification does not suggest that payment by automating checks could be used in this invention.

Construction of an element recited in means-plus-function claim form is strictly limited by the statute. A Section 112-6 element does not cover all means for performing the claimed function. It covers only the corresponding structure described in the specification and clearly linked in the specification to the claimed function. B. Braun, 124 F.3d 1419, 1424. The ' 105 specification does not sufficiently describe and link structure for automating a check to satisfy the requirements of s. 112-6 as "corresponding structure."

Thus, it is recommended that the structure described in the specification for performing the payment function is "a computer capable of performing electronic funds transfer." Of course, a s. 112-6 element covers the structure disclosed and equivalents thereof. 35 U.S.C. s. 112 para. 6: Whether or not a computer capable of automating a check is equivalent to the disclosed computer capable of performing electronic fund transfer is a question of infringement for the trier of fact, not an issue to be resolved as a matter of law in the process of claim construction.

The *Trigon* rulings found the algorithm of Fig. 8 and the disclosure of "medical payment systems" to be a disclosed alternative corresponding structure for "payment means" under s. 112 -6. A436. I respectfully disagree for the reasons stated above.

E. *Claim Element 1(d):*

"means in communication with said input means responsive to input of data through said input means symbolic of symptoms of one of said predetermined plurality of persons for tentatively identifying a proposed mode of treatment for said one of said predetermined plurality of persons and, when said proposed mode of treatment includes one of said predetermined procedures requiring utilization review, for producing indicia indicative thereof and for preventing payment therefore by said payment means until said utilization review has been obtained and data indicative thereof has been entered in said system."
                                    Stipulations

The parties have stipulated that:

i) element 1(d) is a means-plus-function element and is governed by 35 U.S.C. s. 112, para. 6; JCC10/A471, and

ii) element 1(d) is to be construed as, "a computer system in communication with the input means, responding or replying to the entry of one or more items of information through the input means, which computer system is capable of performing at least three tasks." JCC10-11/A471-72. However, the parties disagree as the three tasks and the structure necessary to carry out such tasks. *Id*.

Introductory Clause

The "means" of 1(d) must be "in communication with said input means." "Said input means" finds its antecedent in element 1(a) and should be construed in the same way as for element 1(a).

The parties agree that "communication" means:

"data transfer from one computer to another through a communications medium, such as a telephone, microwave relay, a satellite link, or a physical cable," *citing* Microsoft Press Computer Dictionary, Second Edition (1994); and Webster's New World Dictionary of Computer Terms, Third Ed. (1988). JCC14, 20/A475, 481.

Allcare proposes that "in communication with" means "the receipt or exchange of data." Highmark proposes that it is limited to the receipt or exchange of data "via a modem."

The specification discloses a modem in the Fig. 3 embodiment and states that a conventional modem is preferably used for communication between the central processor 61 and a micro processor 60 located in each physician's office. ' 105 Patent, 7:47-50. However, the Fig. 1 embodiment does not specifically disclose a modem for such communication, stating that the physician office terminals are interconnected to the central processor "by conventional communication paths" (*Id*. 4:10) and that other connections of various elements also are by "communication links" without specifying a modem. *Id*. 5:51-52, 67, 68; 6:1.

In view of the repeated use of the broader term "communication links" in the specification, and the agreement by the parties that "communication" medium includes microwave relay, satellite link, or physical cable, as well as a telephone (modem), it would be improper to limit the claim term "in communication with" to the preferred modem connection of the embodiment of Fig. 3.

Therefore, it is recommended that the term "in communication with" in 1(d) be construed as "the receipt or exchange of data."

The First Function

The first recited function for the claimed "means in communication with said input means" is:

"responsive to input of data through said input means symbolic of symptoms of one of said predetermined plurality of persons for tentatively identifying a proposed mode of treatment for said one of said predetermined plurality of persons...."

Accordingly, the claimed "means" must tentatively identify a proposed mode of treatment, and it must do so in response to input of the specified data through the input means.

Stipulations and Agreements

(i) "Data" means "an item (or items) of information;" JCC3/A464,
(ii) The parties both construe "data symbolic of as "information expressed in a symbolic or representative manner pertaining to;" APH2; HPH8,

(iii) The parties agree that "symbolic" means:

"of or pertaining to, or expressed by means of a symbol or symbols, *i.e.*, something that represents something else by association, resemblance, or convention;" JCC15/A476; APH2,

(iv) The parties agree that "identify" is to be construed as:

"to recognize as being; establish the identity of someone or something;" JCC17, 23; A478, 484,

(v) The parties agree that "for" is construed as "used to indicate the aim, or purpose of an action or activity;" APH3; HPH8; and

(vi) The parties substantively agree on the construction of "tentatively," (APH2; HPH8). Consistent with the proposals of both parties, it is recommended that "tentatively" be construed as "non-fmally, provisionally."

" *Responsive* "

Allcare proposes that "responsive" be construed as "responding, answering or replying" (APH2) while Highmark proposes construction as "answering or replying; responding" (HPH8). Neither the arguments of counsel nor the intrinsic record focus on the difference, if there is any. Thus, it is recommended that "responsive" be construed as "responding, answering or replying" which is the clearer of the two proposals.

" *Symptoms* "

In the Joint Claim Construction Statement, and in its brief, Highmark contended that a symptom must be subjective, i.e. perceived by the patient. JCC15-16/A476-77; Highmark's Opp. at p. 34.

Although Highmark finds some support in the extrinsic evidence, there is not any description in the specification that so limits the term "symptom." In fact the specification refers to the physician correlating the "observed" patient symptoms, without limiting them as to who observed them.

The diagnostic smart system is described as correlating "symptoms" entered by the physician with a list of the most likely medical condition corresponding to such "symptoms." There is no indication in the specification that a physician would not input information about a problem such as a cancerous growth on the back perceived by the physician and not by the patient. That would be an artificial distinction and would defeat the objective of the claimed managed healthcare system to provide "comprehensive" care.

Prior to the hearing, I proposed that "symptom" be construed as "a noticeable change in a patient's condition indicative of some bodily or mental state". In its post hearing submission, Allcare accepted that construction. APH2. In its post hearing submission, Highmark withdrew its contention that a symptom must be subjective and accepted the definition of "symptom" as I proposed, if "disease or disorder" were substituted for "state." HPH8; See Hrg. Trans. at 166.

The specification discusses symptoms usually associated with the most commonly encountered "diseases and other ailments" as being stored in the Physician File 44, (6:55-59), as well as "illnesses" and "medical conditions" corresponding to patient symptoms (6:59-67). Allcare points out that a medical condition such as pregnancy is not a disease and may not be a disorder. Thus, "disease, disorder or other medical condition" seems appropriately inclusive and consistent with the specification.

Therefore, it is recommended that "symptom" be construed as:

"a noticeable change in a patient's condition indicative of some bodily or mental disease, disorder or other medical condition."

" *Input Of Data* "

Highmark proposes that "input" be construed to mean:

"information entered into a computer for processing, as from a keyboard or from a file stored on a disk drive. Normally used as a noun or adjective, the word is often used as a verb to mean entering information." JCC15. A.476; HPH8. Allcare does not offer a proposed construction for "input."

Input in the phrase "responsive to input of data" is used as a verb; thus, the reference to its use elsewhere as a noun or adjective is extraneous. Moreover, the claimed "input of data" is recited as being "through said input means," i.e., a physician office terminal, not from a file stored on a disk drive. The physician office terminals 11a-11c have not only a manual data entry keyboard 55, but also a card reader 52, either of which can be used to enter data into the central processor 10. 7:17-38.

Thus, Highmark's proposed construction can be simplified and adapted to the context of the claim read in the context of the specification as:

"entry of information from the input means of element 1(a) into a computer for processing."

It is recommended that this construction be adopted for the phrase, "input of data".

" *one of such predetermined plurality of persons* "

A "predetermined plurality of persons" was construed above in regard to element 1(a). Here the claim recites, "one" of that group instead of "each" of that group. Highmark proposes that "one" be construed to mean "a member" referring to a single person from the group. JCC16. A477.

This phrase relates to the description in the specification of a single participant using the system. '105 patent, 8:55-9:1.

Allcare offers no proposed construction for "one" in this phrase. Highmark's proposed construction is consistent with the intrinsic record and is recommended.

" *Proposed mode of treatment* "

Allcare proposes that this term be construed as "a suggested method of the application of remedies or therapies to a patient for a disease or injury." APH2. Highmark proposes "a suggested method of the management and care of a patient to combat disease or injury." HPH9.

The two proposed definitions differ only as to the meaning of "treatment."

Highmark's proposed construction for "treatment" is from a medical dictionary (Dorland's Illustrated

Medical Dictionary 28th Ed .; *see* JCC17-18/A478-79), while Allcare's apparently is adapted from two non-technical dictionaries. (The American Heritage Dictionary Second College Edition 1982; The American Heritage Dictionary Third Edition 1992; *see* JCC21-22/A482-83.) In the JCC, each party also proposed the same definition, as later proposed by the other in their respective Post Hearing Statements. See JCC17-18/A478-79 and JCC21-22/A482-83.) The specification is of no help in choosing between these definitions, nor is the remainder of the intrinsic record. Each seems suitable. Generally, for technical terms, technical dictionaries are preferred over non-technical ones. Phillips, 415 F.3d at 1318. Thus, I recommend Highmark's proposed construction, modified to be consistent with the meaning of "symptoms" above, as follows: "a suggested method of the management and care of a patient to combat bodily or mental disease, disorder or other medical condition."

Structure for the first function

Next, the corresponding structure described in the specification for performing the first function must be identified.

The specification describes a diagnostic smart system that aids a physician or other provider in developing a diagnosis based on patient symptoms. The diagnostic smart system includes a Physician File 44 which stores data including an identification of the most commonly encountered diseases and other ailments, together with their usual symptoms. '105 Patent, 6:55-59. Data describing the symptoms of the patient is entered into one of the terminals 11a11e to assist the physician in making a diagnosis. *Id*. 6:59-61; 9:57-60. This data must be entered using some symbols, even if only alphabetical letters spelling the name of the symptom.

Through the terminal, the physician requests identification of the corresponding illness from the central processor 10. *Id*. 6:59-63. The central processor interrogates the Physician File and the system prepares a list of the most likely medical condition and identifies the recommended treatment. *Id*. 6:63-67; 9:59-60. Thus, the computer assists the physician in correlating the patient symptoms, so as to identify the most likely causes of the health problem, to complete his or her diagnosis, and to prescribe the most appropriate treatment. *Id*. 9:60-65.

In summary, the physician enters data representing symptoms of the patient. In response, the computer identifies the most likely causes of those symptoms and identifies the recommended treatment. This recommended treatment is tentative in that the physician does not necessarily accept it. The physician then completes his or her diagnosis.

This description of the diagnostic smart system matches very well with the 1(d) claim language that data "symbolic of symptoms" is entered "through said input means," i.e., one of the physician office terminals, to "means (the central processor) in communication with" the terminal; and the processor is "responsive to" that symptom data, and "tentatively identifies a proposed mode of treatment."

Thus, one of ordinary skill in the art would conclude from the specification that symptoms are the input and a proposed mode of treatment is the output of both the diagnostic smart system described in the specification and the means claimed for performing the first function of 1(d).

Allcare contends that the utilization review smart system is an alternative embodiment for performing the first function of element 1(d).

The specification describes the utilization review smart system as addressing the question of whether a proposed pattern of treatment is appropriate. *Id*. 9:67-10:2. The utilization review smart system is used after the diagnostic smart system to determine whether a proposed treatment requires utilization review. See Fig. 5; and Fig. 6. The utilization review starts with *the physician* entering "data identifying the proposed pattern of treatment," *i.e.*, the pattern of treatment proposed by the physician. *Id*. 10:3-5. The utilization review smart system then "compares the proposed pattern of treatment with the ... recommended treatment protocols and provides an identification of any problem differences." *Id*. 10:5-8; see also 10:13-17, and 11:5-10. If the entered codes "do not meet applicable criteria," "there will ensue a treatment discussion with a nurse." *Id*. 11:44-50. Thus, the input of the utilization review smart system is identification of a treatment proposed by the physician and the output is approval or disapproval of the proposed treatment. That differs substantially from the language of 1(d) that the processor, "responsive" to a description of "symptoms," "tentatively identif(ies) a proposed mode of treatment."

"The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." Phillips, 415 F.3d at 1316. Here, that dictates that structure for performing the first function of 1(d) is the diagnostic smart system, not the utilization review smart system.

Allcare contends that the ICD9 codes disclosed at 11:9-36 as used by the physician to input a proposed treatment can be "symbolic of patient symptoms." However, the specification describes the ICD9 codes as indicating a treatment, not symptoms. Allcare contends that the specification shows entry of ICD9 codes to describe "reasons for visit," which would include symptoms. Allcare Opening Brief p. 26. However, the cited portion of the specification only describes entry of "patient visit, treatment and the like," not "reason for visit." ' 105 Patent, 11:35. Patient visit more likely would be entry of the fact that the patient did visit the physician, and there is no indication in the specification that it includes identification of symptoms.

Allcare next refers to the Mohlenbrock Patent No. 5,018,067, cited in the prosecution history which states that the "ICD-9-CM coding system ... is a classification of diseases, injuries, impairments, symptoms, medical procedures, and causes of death." A204. However, the '105 specification makes no mention of using ICD-9 codes for entry of symptoms in practicing the '105 invention and, at 11:32-56 relied upon by Allcare, describes entry of proposed treatment, not of symptoms.

Allcare contends that the ICD Manual describes the entry of codes identifying symptoms instead of a diagnosis, *e.g.*, where no more specific diagnosis can be made. Allcare Opening Brief, p. 27-28; Holland decl., para. 14, A552. While in some limited circumstances ICD9 codes may be used to indicate symptoms where it is not practical to describe the diagnosis any other way, the '105 specification makes no mention of such use of ICD9 codes. Every instance in which "symptom" is used in the specification refers to the diagnostic smart system.

The *Trigon* rulings found that the utilization review smart system is an alternative structure disclosed as the corresponding structure. A437. I disagree for the reasons stated above.

Allcare contends that the diagnostic smart system is only an "optional" feature, citing the '105 patent at 1:60-69. However, the claims define the invention. Whether the specification states a claimed feature to be optional has no bearing on whether it is an element of the claim. The diagnostic smart system is the only "corresponding structure" described in the specification and thus is required in element 1(d). *See* Frank's Casing Crew v. Weatherford Intern., 389 F.3d 1370, 1378 (Fed.Cir.2004).

Thus, the structure disclosed for performing the first function is a computer system capable of performing the described diagnostic smart system.

The Second Function

"when said proposed mode of treatment includes one of said predetermined procedures requiring utilization review, for producing indicia indicative thereof ..."
Accordingly, the claimed means must produce indicia indicative of the need for utilization review, if the identified proposed mode of treatment requires utilization review.

Each of the disputed terms in the phrase "when said proposed mode of treatment includes one of said predetermined procedures requiring utilization review" has the same meaning as construed above in construing element 1(b) ("predetermined procedure" and "utilization review") and element 1(d) ("proposed mode of treatment"). In addition, the parties have stipulated in relation to Claim element 52(c) that this phrase means:

"when one or more ways of medically or surgically treating a patient that is put forward for consideration, discussion or adoption includes a pre-selected treatment that requires utilization review, as properly construed, the system causes to exist a sign, indication or identifying mark indicating that utilization review is required for such proposed treatment." JCC38/A499.

The phrase must be given the same meaning here.

" *For producing indicia indicative thereof.*"

Highmark proposes that this function be construed as "to display a sign or indication that utilization review is required for a proposed treatment." JCC18/A479; HPH9.

Allcare proposes the construction as:

"to display one or more identifying marks or indications signifying that utilization review is required for a proposed treatment" or

"to provide one or more identifying marks or indication signifying the need for utilization review." JCC27/A488

Neither the arguments of the parties nor the specification focuses on the difference between these definitions nor is helpful in selecting between them. The record does not indicate that this phrase was given a special meaning in the patent. All three proposed constructions are consistent with the intrinsic record. Highmark cites a dictionary definition of "indicia" as "signs; characteristic marks; indications; tokens." Webster's New Twentieth Century Dictionary, Unabridged Second Ed. (1982). JCC18/A479.

Allcare proposes that "indicative" be construed as "signifying," citing the same dictionary. JCC22/A483.

Combining the cited dictionary definitions for "indicia" and "indicative", it is recommended that "producing indicia indicative therefore" be construed as:

"displaying a sign or indication signifying that utilization review is required for such proposed treatment."

That is the ordinary and customary meaning as it would be understood by one of ordinary skill in the art in the context of the patent.

Structure for the Second Function

The parties agree that the second function correlates to the utilization review smart system. Allcare Brief, pp. 32-34; Highmark Opp., p. 42. This is consistent with the specification which describes the health care provider entering into the utilization review smart system, data identifying the proposed treatment; the system comparing that data with the recommended treatment protocols stored in the system; and the system providing an indication of any problem difference and whether, under the applicable criteria, utilization review is required. '105 Patent, 6:13-28, 9:67-10:8; 11:32-50

Thus, the corresponding structure disclosed for performing the second function is a computer system capable of performing the described utilization review smart system.

The Third Function

"preventing payment therefore by said payment means until said utilization review has been obtained and data indicative thereof has been entered in said system."
The parties have stipulated that:

(i.) "prevent" means "to stop or keep from doing something; to keep from happening; to make impossible by prior action:" JCC19, 22/A480, 483, and

(ii.) "obtain" means "to get possession of, especially by trying; to procure;" JCC20, 23/A481, 484.

Allcare proposes that this function be construed as:

"preventing payment for the treatment identified by the system as requiring utilization review until said utilization review has been performed and an indication of the completion of utilization review having been performed has been entered into the system." JCC28/A489.

Highmark proposes:

"stopping the electronic transfer of funds for services rendered by a provider until the quality control review for cost effectiveness has occurred and an identifying mark indicating such utilization review is put into the comprehensive health care management system."

This third function does not appear to be expressly described in the specification or drawings. The specification discloses payment being made (3:22-26; 13:43-48; 14:54-57) but does not expressly discuss preventing payment until utilization review is completed. Allcare contends that the flow chart of Fig. 8 and the accompanying text at 13:34-40 provide such a description. The *Trigon* rulings agreed. A436. However, Fig. 8 and the accompanying text describe only checking whether the claim codes "are accurate" and conform with applicable criteria, not whether utilization review has been completed. See Kurtyka dec 1., para. 4b, A602. Fig. 8 and the accompanying text are not helpful in understanding the meaning of the claim terms.

Lacking meaningful guidance from the specification, it is recommended that the following construction be adopted in order to clarify the language:

"stopping payment by the payment means for the treatments identified by the system as requiring utilization review until said utilization review has been completed and an indication of such completion has been entered into the system."

Structure For Performing Third Function

For the same reason as discussed above regarding the failure of the specification and drawings to describe the third function, they also do not specifically disclose any structure for performance of the third function.

Allcare points to the reference in the '105 patent to "a variety of medical payment systems have heretofore been proposed ..." as a description in the specification of structure for performing the third function. Allcare relies on Mr. Singer's testimony that such prior art medical payment systems had the ability to "adjudicate" claims, and Dr. Nobel's testimony that "adjudication" means the review of a claim to determine whether it will be paid. Singer Deck para. 8, A533-34; Nobel Dep. p. 117:15-118:25; A687.1-687.2. However, neither Mr. Singer nor Dr. Nobel mention payment being prevented because utilization review was required and not yet performed. Thus, the reference to "a variety of medical payment systems ..." is insufficient for disclosure in the specification of structure for performing the third function.

Presumably the structure would be "a computer system capable of stopping payment for treatments identified by the system as requiring utilization review until such utilization review has been completed and an indication of such completion has been entered into the system."

Structure For Three Functions Of 1(d)

Thus, the corresponding structure for performing the three functions of element 1(d) is:

A computer system capable of performing the described diagnostic smart system, and the described utilization review smart system, and capable of stopping payment for treatments identified by the system as requiring utilization review until such utilization review has been completed and an indication of such completion has been entered into the system.

VII. *CLAIM 52*

A. *Introduction*

While Claim 1 is an apparatus claim directed to the computerized system itself, Claim 52 is a method claim directed to the steps carried out in using the system. The parties have stipulated that where identical terms are used in both claims, they should be construed in the same way in both claims. JCC30/A491. Subject to that stipulation, each claim must be construed based on the elements it recites, and there is a presumption that differences between the claims raise different meanings.

B. *Preamble*

"A method of managing a comprehensive health care management system utilizing a data processor, data

bank memories, input means and payment means comprising:"

<p style="text-align:center">Stipulations</p>

The parties have stipulated that:

a) "Managing" means "directing or administering;" JCC30/A491.

b) "Comprehensive health care management system" has the same meaning in the preamble of Claim 52 as in the preamble of Claim 1; Id.

c) Preamble elements, "data processor," "data bank memories," "input means," and "payment means" are all claim limitations; JCC31/A492.

d) A "data processor" is:

"a device or system capable of performing operations upon data to achieve a desired goal, such as a central processing unit (CPU) or the use of one or more computers, *e.g.*, personal computer, mainframe, central processing system, microprocessor or the like;" JCC31/A492.

For clarification, it is recommended that this construction be adopted in the following revised form:

"a device or system capable of performing operations upon data to achieve a desired goal. A data processor may be a central processing unit (CPU) or one or more computers such as personal computers, mainframe computer, microprocessors, or the like;" Id.

e) "Input means" and "payment means" are means-plus-function elements governed by 35 U.S.C. s. 112, para. 6; JCC31-32/A492-93, and

f) "data bank memories;" "input means;" "payment means;" and "comprising" are to be construed as in Claim 1. JCC30/A491

There appears to be no stipulation in the record that the entire preamble of Claim 52 is a limitation of the claim. It is stipulated that certain structures recited in the preamble are claim limitations, and that the preamble of Claim 1 is a limitation of Claim 1. The body of Claim 52 repeatedly references the structures recited in the preamble as antecedents. Therefore, it is recommended that the entire preamble of Claim 52 be found to be a limitation of the claim.

C. *Element 52(a)*

"entering into said data processor data identifying each of a predetermined plurality of persons."
Claim element 52(a) is generally similar to element (a) of Claim 1; but element 52(a) is a method step, not governed by s. 112, para. 6. Thus, construction of element 52(a) does not employ a s. 112-6 analysis.

"Said data processor" finds its antecedent in the preamble and must be given the same construction as in the preamble.

The term "entering" is stipulated to mean "the act or process of inputting information." JCC35/A496.

The claim term "data identifying each of a predetermined plurality of persons" must be given the same construction as the same phrase in 1(a); *See*, JCC30/A491.

Claim 52 does not specify that the input means is used to enter the claimed data. The specification does not say whether the entry of the identity of each authorized person described at 8:3-8 is done through a data terminal at a "company personnel department" or "insurance company" ('105 patent, 8:7), or through a single physician's office terminal, or the collective plurality of physician office terminals 11a-11c. The issue of how the data is entered need not be resolved for construction of this claim which does not specify any particular input terminal(s).

D. *Element 52(b)*

"entering into one of said data bank memories an identification of predetermined procedures requiring utilization review."
All terms of this element have been construed above, and have the same meaning here.

E. *Element 52(c)*

"entering through said input means into said data processor data symbolic of patient symptoms for tentatively identifying a proposed mode of treatment and, when said proposed mode of treatment includes one of said predetermined procedures requiring utilization review, producing indicia indicative thereof."
Stipulations

The parties have stipulated that:

(i) claim element 52(c) is construed to be "the step of introducing or inputting one or more items of information through a physician's office terminal," but disagree as to the scope of " *data symbolic of patient symptom for tentatively identifying a proposed mode of treatment* "; JCC37-38/A498-99.

(ii) " *when said proposed mode of treatment includes one of said predetermined procedures requiring utilization review, producing indicia indicative thereof* " is construed as "when one or more ways of medically or surgically treating a patient that is put forward for consideration, discussion or adoption includes a pre-selected treatment that requires utilization review, as properly construed, the system causes to exist a sign, indication or identifying mark indicating that utilization review is required for such proposed treatment." JCC38/A49.9.

" ***Data Symbolic of Patient Symptoms for Tentatively Identifying a Proposed Mode of Treatment.***"

"Symbolic," "data symbolic of," "symptom," "for," "tentatively," "identify," and "proposed mode of treatment" were construed in construing the first function of element 1(d) above and have the same meaning here. Although this phrase in element 52(c) is not governed by s. 112-6, while element 1(d) was, s. 112-6 does not invoke any special rules for construing the *function* of a means-plus-function element. Cardiac Pacemaker, 296 F.3d at 1113. It is the need to identify the "corresponding structure" that is unique to construction of a s. 112-6 element. Thus, the analysis of these terms in construing them in relation to the first function of 1(d) is applicable here, but the analysis of the structure for performing that function in 1(d) is not applicable here.

Neither party has proposed that the claim term "patient" needs to be construed.

Thus, consistent with the prior construction, the meaning of "data symbolic of patient symptoms for tentatively identifying a proposed mode of treatment" is:

"information expressed in a symbolic or representative manner pertaining to a noticeable change in a patient's condition indicative of some bodily or mental disease, disorder or other medical condition for tentatively identifying a suggested method of the management and care of a patient to combat disease or injury; where:

(i) "symbolic" means "of or pertaining to, or expressed by means of a symbol or symbols, i.e., something that represents something else by association, resemblance, or convention;"

(ii) "for" means "used to indicate the aim, or purpose of an action or activity;"

(iii) "tentatively" means "non-finally, provisionally;" and

(iv) "identifying" means "to recognizing as being; establishing the identity of someone or something."

Highmark argues that 52(c) covers only the disclosed diagnostic smart system and not the utilization review smart system. Allcare argues that 52(c) covers either of those embodiments alternatively. Element 52(c) differs from element 1(d) in two ways. 52(c) is a method step not governed by the unique construction rules of s. 112-6, and it does not include the recitation that the tentative identification of a proposed mode of treatment is "responsive" to input of symptom data.FN7

FN7. Although 52(c) includes within the method step, a structure ("input means") that is subject to s. 112-6, the remainder of the limitations of 52(c) define a method step not subject to s. 112-6 construction. Neither party contends otherwise.

What disclosed embodiments the claim element covers is not a proper part of claim construction except for claim elements that are governed by s. 112-6. To decide that 52(c) covers only a system using the diagnostic smart system embodiment, as Highmark proposes, would improperly read a limitation from the specification into the claim. To decide that 52(c) also covers the disclosed utilization review smart system, as Allcare proposes, would involve a hypothetical infringement analysis not properly part of claim construction. The infringement issue will be whether the *accused* method is covered by element 52(c), not whether the disclosed utilization review smart system is covered. That is an infringement issue for the trier of fact, not a claim construction issue.

F. *Element 52(d)*

"preventing payment therefor by said payment means until said utilization review has been obtained and data indicative thereof has been entered in said system."
The words used in element 52(d) are identical to those used in reciting the third function in 1(d). Therefore, they will be given the same construction.

VIII. *CLAIM 53*

Claim 53 is a "dependent" claim, depending from "independent" Claim 52. Thus, Claim 53 incorporates by

reference all of the limitations of Claim 52 as if they were expressly recited in Claim 53 ("a method of managing a health care management system according to Claim 52 in which").

The parties have stipulated that:

In addition to including all of the limitations claim 52, the added limitation of claim 53 is that the "step of 'tentatively identifying a proposed mode of treatment,' further includes the steps of:

(i) examining or verifying said proposed mode of treatment; and

(ii) when said proposed mode of treatment includes an ancillary service, producing an indication thereof and providing said ancillary service," where the term " *an ancillary service* " means "one of the totality of supporting services that are needed to support total health. Such services include those of pharmacists, prosthesis providers, dentists, optometrists, audiologists and other medical specialists, laboratories and the like."

However, the parties disagree as to the meaning of " *providing* " in the context of claim 53.

The parties also disagree on the construction of the claim term " *providing said ancillary service*." JCC40/A501.

Highmark proposes that "providing" means "to furnish, supply" and "providing said ancillary service" means "the ancillary service is furnished or provided by the system."

The drawings depict the use of ancillary services in Fig. 10, and the specification describes such use primarily at '105 Patent, 14:24-38. The system identifies the need for ancillary services and "communicates the need" for ancillary services "to the indicated ancillary service, examples of which are Specialists 221, Dentists 222, Pharmacists 223 for medications, Suppliers of Prosthesis," etc. *Id*. 14:28-38. For example, if the patient wishes prescribed drugs to be "ordered automatically" by the system, the system "transmits the order" to an approved "ancillary provider." *Id* . 12:44-57. The specification does not indicate that the system itself performs or delivers the ancillary service. If the system itself were to perform or deliver the ancillary service, why would it transmit an order to an ancillary "provider" or communicate the need to the "ancillary service"?

The disclosure does not support the narrow definition of "providing" proposed by Highmark. The specification shows that a more appropriate definition of "providing" is "giving or arranging for." *See also Cambridge International Dictionary of English* (2001).

Allcare proposes that "providing said ancillary services" means:

"giving, facilitating or arranging for the ancillary services, including by (a) an automated system, medical director or other suitable person facilitating an ancillary service by indicating that payment will be made for a particular ancillary service as an approved treatment protocol or as part of an approved treatment protocol, such that the service is available and affordable; or (b) a provider electronically communicating a request for an ancillary service (such as a referral to a medical specialist) using the computer system, such that the service is readied or prepared."

The explanation following "including" in Allcare's proposal is unduly lengthy and includes details not required by the specification.

Thus, it is recommended that "providing" in Claim 53 means "giving or arranging for."

IX. *CLAIM 102*

A. *Preamble*

"A method of managing an integrated health care management system having input means, payment means and memory storage, comprising:"

Stipulations

The parties have stipulated that:

i) Claim 102 pertains to "directing or administering an integrated health care management system and is a claim limitation," JCC42/A503;

ii) "managing" and "comprising" have the same meaning as in Claim 1 and/or Claim 52; *Id*.

iii) the terms "input means" and "payment means" are limitations of the claim and are governed by 35 U.S.C. s. 112, para. 6. They have the same meaning as in Claims 1 and 52, JCC43/A504; and

iv) the term "memory storage" means "the facilities of a computer or computer system that store and permit retrieval of data, including internal and external storage devices, such as hard disks, floppy disks, tape drives, and memories (RAM/ROM)." JCC43/A504.

" *Memory Storage* "

The stipulated definition of "memory storage" adds the technical terms "hard disks, floppy disks, tape drives and memories (RAM/ROM)" which would seem to be at least as difficult for the average juror to understand as the claim term "memory storage" itself. It is recommended that the parties try to agree on a simpler definition, such as ending the definition after "external storage devices." In the absence of such agreement, it is recommended that the Court simplify the definition as I have suggested.

" *Integrated Health Care Management System* "

The parties disagree as to the meaning of "integrated health care management system." Highmark proposes the same definition it proposed for "comprehensive health care management system" in the preamble of Claim 1, but substituting "unified" for the first occurrence of "comprehensive." Allcare proposes the following:

"a harmonious computer system for directing or administering health care which integrates (*i.e.*, puts various components together to form a harmonious computer system that includes) physicians, medical care facilities, patients, insurance companies and/or other health care payers, employers and banks and/or other financial institutions."

Allcare's proposed construction converts the claim to "a ... computer system" based on a dictionary

definition of "integrated" as a harmonious computer system in which various computer components are put together. Webster's New World Computer Dictionary (1988). The preamble of Claim 102 specifies that it is the health care management system that is integrated. The specification describes the health care management system as integrating physicians, medical care facilities, patients, insurance companies, etc., and integrating important elements of total health care, such as preventative health measures, and changing of lifestyles. 1:8-11; 1:36-44. The definition proposed by Allcare is from a computer dictionary and apparently defines an integrated computer system not an integrated health care management system. The latter includes many elements other than computer components. Thus, the claim is to a method of managing a health care management system, not merely to a computer system. Allcare's proposed construction is not consistent with the intrinsic record.

For the reasons discussed above in construing the preamble of Claim 1, emphasis here should be given to the integration of the elements of the system, rather than to the comprehensiveness of the system.

Thus, it is recommended that "integrated health care management system" in the preamble of Claim 102 be construed to mean:

"A unified health care management system that includes the integrated interconnection and interaction of the patient, health care provider, bank or other financial institution, insurance company, utilization reviewer/case manager and employer so as to include within a single system each of the essential elements to provide patients with complete health care, especially by trained and licensed professionals and payment therefore

B. *Element 102(a)*

"storing through said input means into said memory storage personal health profile data for each of a predetermined plurality of persons."

Stipulations

The parties have stipulated that:

i) Element 102(a) is to be construed as "the step of transmitting or depositing health profile data through the physician's office terminal into the computer system's memory and making such information available for retrieval; JCC44/A505

ii) personal health profile data for each of a predetermined person is stored in a computer storage facility that is logically or physically connected with the system; JCC44/A505 and

iii) "input means" has the same meaning as in Claim 1 and Claim 52.

" *Health Profile Data* "

Allcare proposes that "health profile data" means "items of information found in a health profile, such as a person's health history or physical exam results." APH4. Highmark proposes, "information such as health history or physical examination results ." HPH19.

The specification discloses entry and storing of a patient's health history and physical examination, as part of an "initial health screening." '105 Patent, 8:15-21, box 72, 73 and 74, Fig. 4. Both parties' proposals are consistent with that disclosure.

It is recommended that "health profile data" means "information such as health history or physical examination results ."

<center>" *Each of a Predetermined Plurality of Persons* "</center>

The claim phrase "each of a predetermined plurality of persons" has the same meaning as in Claim 1(a) and Claim 52(a), i.e., "every one of a group of two or more persons, individually, the group being determined in advance."

Highmark contends that a physician would enter through his or her terminal only information about patients who visit his or her office, and that is not a "predetermined" group as claimed. Hrg. Trans. 74-82. Thus, although Highmark agrees that "each" means "every one," it contends that such construction causes the claim to not read on any disclosed embodiment.

Allcare also contends that if each means "every one," Claim 102 would not read on any disclosed embodiment. Allcare cites *Vitronics* for the proposition that a claim construction that excludes a preferred embodiment is "rarely if ever correct." 90 F .3d at 1583.

Allcare claims this should be corrected by giving "each" a special meaning of "one." Allcare contends that through the illustration of box 70 in Fig. 4 and the accompanying description at 8:3-5, the applicant acted as his own lexicographer and specially defined "each," to mean "one." Hrg. Trans. 231-37. The specification at 8:3-5 specifies that information for "each" participant is entered into the System as illustrated by rectangle 70, which uses the singular "entry *of participant* into system." Allcare contends that the applicant therefore used "each" to mean "one."

As in claim elements 1(a) and 1(d), here in elements 102(a) and 102(e), the applicant again showed that he recognized the difference between "each" and "one." That is strong evidence that applicant did not intend to specially define "each" to mean "one." The use of the singular "participant" in box 70 apparently reflects that the participants are entered individually, one at a time.

Element 102(a) requires that the data be entered through the "input means" but does not specify whether it is entered through a single physician's office terminal or more than one, or all, of the physician's office terminals. For example, if it is a requirement of the system that all of the participants, or some predetermined subset of all the participants, e.g., those at one company, or those who are diabetic, have an initial screening (box 72), every one of that "predetermined" group would visit their respective physicians, every one would have an initial health screening, and the physicians collectively through the "input means" at their respective offices would enter the personal health profile data for every member of the predetermined group.

The specification is very brief in its description of the step illustrated in box 70, and does not specifically describe the embodiment discussed above. However, that embodiment is not inconsistent with the specification.

The vague and inconclusive disclosure of box 70 and the specification at 8:3-5 do not overcome the clear distinction drawn by the applicant between "each" and "one", and the clear difference in their common and ordinary meaning. Thus, the intrinsic evidence does not support Allcare's contention that the applicant acted

as his own lexicographer and specially defined "each" to mean "one."

An ambiguous claim can be construed to preserve its validity; but only where the proposed claim construction is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims. Phillips, 415 F.3d at 1327, citing Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898 (Fed.Cir.2004). To construe "each" to mean "one" would ignore the explicit language of the claims, and would be improper.

Use

Element 102(a) claims the input and storage of the specified data. It does not recite the use of that data. Thus, this element 102(a) is not limited to any particular use of the stored data.

C. *Element 102(b)*

"storing into said memory storage symptoms and treatment data for each of a predetermined plurality of health profiles and problems;"

Stipulations

The parties have stipulated that:

i) Element 102(b) is to be construed as "the step of transmitting or depositing symptoms and treatment information into the computer's memory and making such information available for retrieval;" JCC45/A506

ii) "storing" means "transmitting or depositing information into a computer's memory and making such information available for retrieval;" *id*.

iii) "memory storage" has the same meaning as in element 102(a); and

iv) "symptom" and "treatment" have the same meaning as in element 1(d).

" *Each of a Predetermined Plurality* "

This term was construed as a modifier of "persons" in construing element 1(a). The same construction should apply here.

Health Profiles and Problems

Allcare proposes that "health profiles" means "summaries of health, such as a plurality of health histories or physical examination results." APH4. Highmark proposes that "health profiles and problems" means "health histories or physical examination results, and medical problems." HPH20.

Looking at the claim language itself, the term "health" appears to modify both "profiles" and "problems." Nothing in the intrinsic record is inconsistent with that, and the specification is concerned with health care.

Thus, it is recommended that "health profiles and problems" in element 102(b) means, "health related summaries, such as health histories or physical examination results and health problems."

Highmark contends that element 102(b) describes a process for setting up the diagnostic smart system as discussed above with respect to element 1(d). Certainly, the specification describes the diagnostic smart system as the use for the data claimed to be stored in element 102(b). See discussion of element 1(d) above. However, this element 102(b) claims the input and storage of the specified data. It does not claim the use of that data. Thus, element 102(b) is not limited to using the data for the diagnostic smart system or to setting up a diagnostic smart system. To limit this claim element to setting up for use in the diagnostic smart system would improperly read an unclaimed element from the specification into the claim. CollegeNet, 418 F.3d at 1231.

It is only limited to storing the claimed data for an unclaimed use. Even though only one use is disclosed, the claim must not be construed as limited to that single embodiment. Phillips, 415 F .3d at 1323.

D. *Element 102(c)*

"storing in said memory storage criteria for identifying treatments requiring utilization review."
All terms of this element have been previously construed, and should be given the same construction in this element, or their construction is agreed to by the parties.

E. *Element 102(d)*

"storing in said memory storage criteria for identifying treatments requiring second opinions;"
All terms of this element have been previously construed, and should be given the same construction in this element, or their construction is agreed to by the parties.

F. *Element 102(e)*

"entering into said system information identifying a proposed medical treatment for one of said plurality of persons;"
"(I)dentifying" was construed in relation to element 1(a) and has the same meaning here.

" *Proposed Medical Treatment* "

The parties disagree as to the meaning of the phrase "proposed medical treatment." JCC52/A513.

Highmark proposes that "proposed medical treatment" be construed as "a proposed medical treatment for disease." HPH23. Allcare proposes that the phrase means "a suggested remedy or therapy to a patient for a disease or injury." JCC52/A513.

"(P)roposed *mode* of treatment" was construed in relation to elements 1(d) as "a suggested method of the management and care of a patient to combat disease or injury." The issue is the effect of "medical" being substituted for "mode" here.

The intrinsic record uses the term "medical" many times but does not provide any assistance in defining it. Dorland's Illustrated Medical Dictionary 28th Ed. (1982) (A513) distinguishes "medical as distinct from surgical treatment." Although terms such as "medical treatment systems" (1:7-8); and "recommended medical procedures" (1:65) are used in the specification, and may be intended to include both surgical and

non-surgical, neither the word surgical nor non-surgical is used in the patent. In stipulating that "procedures" include "both medical and surgical procedures" (see construction of element 1(b) above) the parties recognized this distinction. I therefore recommend that "medical treatment" be construed to distinguish medical treatment from surgical treatment.

Thus, I recommend that the phrase "proposed medical treatment" be construed to mean:

"a suggested non-surgical method of the management and care of a patient to combat disease or injury."

G. *Elements 102(f) and (g)*

The construction of all terms of these elements are agreed to by the parties, or they have been previously construed, and should be given the same construction in this element.