UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

CAVE CONSULTING GROUP, INC.,

Plaintiff,

v.

TRUVEN HEALTH ANALYTICS INC.,

Defendant.

Case No. 15-cv-02177-SI

ORDER RE: CLAIM CONSTRUCTION

Re: Dkt. Nos. 64, 65, 68

On April 11, 2016, the Court held a tutorial and claim construction hearing. The Court adopts the constructions set forth in this order.

BACKGROUND

On November 18, 2015, plaintiff Cave Consulting Group, Inc. ("CCGroup") filed suit for patent infringement against defendant Truven Health Analytics ("Truven"). The Second Amended Complaint ("SAC") alleges that CCGroup and Truven are competitors in the market for physician efficiency measurement software. Dkt. No. 44, SAC ¶ 4. CCGroup accuses Truven of willfully and deliberately infringing two of CCGroup's patents: U.S. Patent No. 8,340,981 ("the '981 patent") and U.S. Patent No. 8,768,726 ("the '726 patent). *Id.* ¶¶ 9, 12. The patents share the same title (*Method, System, and Computer Program Product for Physician Efficiency Measurement and Patient Health Risk Stratification Utilizing Variable Windows for Episode Creation*) and written description, which describe the method as follows:

> A method for measuring physician efficiency and patient health risk stratification is disclosed. Episodes of care are formed from medical claims data and an output process is performed. Physicians are assigned to report groups, and eligible physicians and episode assignments are determined. Condition-specific episode

> statistics and weighted episode statistics are calculated, from which physician efficiency scores are determined.

'981 Abstract; '726 Abstract. The '981 patent is incorporated by reference in its entirety into the '726 patent. See '726 Patent at 1:11-23. Both of the asserted patents claim priority to a patent application filed on March 5, 2004, that issued as U.S. Patent No. 7,739,126 (the "'126 patent").[1] The asserted patents are directed to methods and systems for managing medical information to perform and report measurements of physician efficiency.

CCGroup alleges that Truven is "infringing one or more claims of both Asserted Patents by making, importing, using, selling, and/or offering for sale its physician efficiency measurement software and services, including at least the software products marketed as the 'Advantage Suite' and 'Physician Performance Assessment' ('the Accused Products')." SAC ¶ 15. CCGroup alleges infringement of independent claims 13 and 20 of the '981 patent and independent claim 1 and dependent claims 2-5 of the '726 patent.

The parties dispute three terms: (1) "calculating weighted episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type" (claim 1 of '726 patent); (2) "calculating episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type" (claims 13 and 20 of the '981 patent); and (3) "maximum duration rule" (claims 13 and 20 of the '981 patent).[2]

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[1] CCGroup alleged infringement of the '126 patent in litigation against OptumInsight, Inc. in *Cave Consulting Group, Inc. v. OptumInsight, Inc.*, Case No. 5:11-cv-0469 EJD. Judge Davila found that case to be not related to this case. Dkt. No. 396 in Case No. 5:11-cv-0469 EJD. Judge Davila issued a claim construction order on June 7, 2013, and some of the same (or similar) terms in dispute in the instant matter were before Judge Davila. The parties dispute whether Judge Davila's claim construction order is relevant to this case. Truven argues that Judge Davila's order is not binding because, *inter alia*, the '126 patent has a different specification and does not disclose "dynamic window periods," "static window periods," or "variable window periods" -- terms which are at issue in this case, and that are relevant to the another term at issue, "maximum duration rule." Truven also notes the procedural history of the *OptumInsight* case: in April 2015, a jury found that OptumInsight infringed the '126 patent, and post-trial motions addressing, *inter alia*, claim construction and written description were argued in August 2015 and remain pending. CCGroup argues that Judge Davila's constructions are persuasive because the patents are similar, and CCGroup has proposed the constructions adopted by Judge Davila where applicable. The Court finds that while Judge Davila's claim construction is not binding on this Court, it is persuasive.

[2] At the hearing, the parties agreed to construe "static window period" as "fixed number of days from the beginning of an episode that defines all services to include in an episode of care," and the parties withdrew "variable window period" as a term in dispute.

LEGAL STANDARD

Claim construction is a matter of law. *Markman v. Westview Instr., Inc*., 517 U.S. 370, 372 (1996). Terms contained in claims are "generally given their ordinary and customary meaning." *Phillips v. AWH Corp*., 415 F.3d 1303, 1312 (Fed. Cir. 2005). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id*. at 1312. In determining the proper construction of a claim, a court begins with the intrinsic evidence of record, consisting of the claim language, the patent specification, and, if in evidence, the prosecution history. *Id*. at 1313; *see also Vitronics Corp. v. Conceptronic, Inc*., 90 F.3d 1576, 1582 (Fed. Cir. 1996). "The appropriate starting point . . . is always with the language of the asserted claim itself." *Comark Communications, Inc. v. Harris Corp*., 156 F.3d 1182, 1186 (Fed. Cir. 1998); *see also Abtox, Inc. v. Exitron Corp*., 122 F.3d 1019, 1023 (Fed. Cir. 1997).

Accordingly, although claims speak to those skilled in the art, claim terms are construed in light of their ordinary and accustomed meaning, unless examination of the specification, prosecution history, and other claims indicates that the inventor intended otherwise. *See Electro Medical Systems, S.A. v. Cooper Life Sciences, Inc*., 34 F.3d 1048, 1053 (Fed. Cir. 1994). The written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format. *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc*., 242 F.3d 1337, 1344 (Fed. Cir. 2001). In other words, the specification may define claim terms "by implication" such that the meaning may be "found in or ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d at 1584 n.6.

In addition, the claims must be read in view of the specification. *Markman*, 52 F.3d at 978. Although claims are interpreted in light of the specification, this "does not mean that everything expressed in the specification must be read into all the claims." *Raytheon Co. v. Roper Corp*., 724 F.2d 951, 957 (Fed. Cir. 1983). For instance, limitations from a preferred embodiment described in the specification generally should not be read into the claim language. *See Comark*, 156 F.3d at 1187. However, it is a fundamental rule that "claims must be construed so as to be

consistent with the specification." *Phillips*, 415 F.3d at 1316. Therefore, if the specification reveals an intentional disclaimer or disavowal of claim scope, the claims must be read consistently with that limitation. *Id*.

Finally, the Court may consider the prosecution history of the patent, if in evidence. *Markman*, 52 F.3d at 980. The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution. *See Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995). In most situations, analysis of this intrinsic evidence alone will resolve claim construction disputes. *See Vitronics*, 90 F.3d at 1583. Courts should not rely on extrinsic evidence in claim construction to contradict the meaning of claims discernable from examination of the claims, the written description, and the prosecution history. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583). However, it is entirely appropriate "for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field." *Id*. Extrinsic evidence "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317. All extrinsic evidence should be evaluated in light of the intrinsic evidence. *Id*. at 1319.

DISCUSSION

I. Person having ordinary skill in the art

CCGroup asserts that the person having ordinary skill in the art of the asserted patents would have (a) a degree in computer science or equivalent work experience; (b) at least two years of administrative experience in a hospital or other clinical setting; and (c) a degree in nursing, medicine, or allied health, or equivalent experience. Truven asserts that the person having ordinary skill in the art would have at least two years of experience in health services research, health economics, national and state health policy, or physician efficiency measurement, either in

academia or industry.

At the hearing, counsel for CCGroup argued that its definition of a person having ordinary skill in the art was proper because such a person would, at a minimum, need to have computer programming experience and some form of healthcare analytic experience in order to practice the invention. CCGroup asserts that Truven's proposal results in a definition that is artificially low for enablement purposes because it would allow for a person with two years of experience in health services research but who has no experience with computer programming. CCGroup contends that a person with ordinary skill the art would have computer programming experience as well as healthcare analytic experience so that they could bring the invention to fruition.

In response, counsel for Truven asserted that Dr. Cave does not have a degree in computer science, and that the parent application lists a computer scientist as a coinventor. Thus, Truven argues that a person having ordinary skill in the art does not need to have all three of the very different qualifications proposed by CCGroup. Counsel for Truven also asserted that because the claims are method claims, the claims could all be performed with a pencil and paper and therefore that a person having ordinary skill in the art need not have computer programming experience.

Although the parties disagree about how to define a person having ordinary skill in the art, neither party explained in their papers or at the hearing how this dispute impacts claim construction as none of the proffered constructions turn on the parties' different definitions of a person of ordinary skill in the art. The only difference identified by the parties related to enablement, with CCGroup asserting that Truven's definition was inadequate because it would artificially raise the requirements to prove enablement. The Court also notes that aside from attorney argument, neither party provided the Court with a method or basis for defining a person having ordinary skill in the art.[3] *Cf. Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256-57 (Fed. Cir. 2007) ("Factors that may be considered in determining level of ordinary skill in

[3] For example, although counsel stated at the hearing that Dr. Cave does not have a degree in computer science and that the parent application lists a computer scientist as a coinventor, there is no evidence in the record to support these assertions. The Court also notes that Judge Davila's claim construction order did not define a person having ordinary skill in the art.

the art include: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field."). Accordingly, the Court finds it unnecessary to resolve this dispute at this time. The parties may renew their arguments regarding how to define a person having ordinary skill in the art as that issue is relevant to subsequent motion practice.

II. '726 Patent

Independent claim 1 of the '726 patent (with the disputed term in bold) reads:

> 1. What is claimed is:
>
> A method implemented on a computer system of determining physician efficiency, the method comprising:
>
> obtaining medical claims data stored in a non-transitory computer readable medium on the computer system;
>
> performing patient analysis using said obtained medical claims data to form episodes of care utilizing the computer system;
>
> assigning complete (non-partial) episodes of care to physicians utilizing an assignment rule that allows assignment of an episode of care to more than one physician;
>
> assigning at least one physician to a report group based on geographic area designation utilizing the computer system, each physician assigned to no more than one report group;
>
> determining eligible physicians and episode of care assignments utilizing the computer system;
>
> calculating condition-specific episode of care statistics utilizing the computer system;
>
> **calculating weighted episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type utilizing the computer system**; and
>
> determining efficiency scores for physicians from said calculated condition-specific episode of care statistics and said weighted episode of care statistics calculated across medical conditions utilizing the computer system.

'726 Patent at 109:8-41.[4]

CCGroup proposes to construe the phrase "calculating weighted episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type" as "calculating cost or length of care statistics for a group of medical conditions, using the relative importance of each condition to the others of the group, using only medical conditions within a set defined in advance of processing for a specific specialty type."[5] Truven proposes the following construction: "calculating cost or length[6] of care statistics using a predetermined, specialty-specific weight factor for each medical condition in a set of medical conditions ('the marketbasket') defined in advance of processing. This is called indirect standardization." The disputes are (1) whether the term is limited to a particular type of weighting; and (2) what constitutes a "predefined set of medical conditions for a specific specialty type."

A. "weighted"

CCGroup contends that the "weighted" limitation in this claim term covers any type of weighting, including indirect and direct standardization. CCGroup asserts that nothing in the language of the claim indicates that it is limited to a specific type of weighting. CCGroup also

[4] Dependent claims 2-5 specify different types of episode of care statistics that are calculated. For example, dependent claim 2 states, "The method of claim 1, wherein said act of calculating condition-specific episode of care statistics comprises calculating condition-specific episode of care statistics for physicians in the report group." *Id*. at 109:41-45. Dependent claim 3 reads, "The method of claim 1, wherein said act of calculating condition-specific episode of care statistics comprises calculating condition-specific episode of care statistics for peer groups." *Id*. at 109:46-49. Dependent claim 4 reads, "The method of claim 1, wherein said act of calculating condition-specific episode of care statistics comprises calculating peer group weighted episode of care statistics across medical conditions." *Id*. at 109:50-53. Dependent claim 5 reads, "The method of claim 1, wherein said act of calculating condition-specific episode of care statistics comprises calculating physician weighted episode of care statistics across medical conditions." *Id*. at 109:50-53.

[5] Judge Davila construed "weighted episode of care statistics" in the '126 patent to mean "cost or length of care statistics for a group of medical conditions calculated using the relative importance of each conditions to the others of the group." Order at 6.

[6] Although initially disputed, Truven agreed in its claim construction brief to the addition of "or length" to its proposed construction of this term and the similar term in the '981 patent.

argues that Truven's proposed construction would render dependent claim 6 (which claims indirect standardization) redundant, and would nullify dependent claim 7 (which claims direct standardization).

According to the specification and prosecution history, direct standardization calculates physician efficiency scores based on a physician's actual episode composition. *See* '726 patent at 1:64-65; Dkt. 65-7 at 16 (Office Action Response for Application No. 10/794,216 dated March 11, 2010, stating that "The direct standardization method utilizes each physician's episode distribution weight to calculate the physician and peer group weighted episode statistics.") (emphasis in original). The specification states that with indirect standardization, "[e]ach medical condition in a specialty-specific marketbasket is assigned a weight factor that reflects the importance or relevance of that medical condition to the marketbasket. The weight factors are used to compute the overall marketbasket weighted mean and standard deviation across all medical conditions in the marketbasket. The sum of the weight factors in a marketbasket equals 1.00 (referred to the specialty-specific marketbaskets, Tables 29-60)." '726 patent at 93:3-10.

Truven argues that CCGroup's proposed constructions are incorrect because the '726 patent disclaimed direct standardization by criticizing it as a problem in the prior art and promoting the claimed invention as providing a more accurate method and system for calculating physician efficiency. Truven notes that throughout the lengthy written description, the words "direct standardization" are never used, and Truven argues that the only disclosure related to direct standardization is found in the "Background of the Invention," where the method is criticized as a deficiency in the prior art. See '726 patent at 1:64-65 (describing "us[ing] a physician's actual episode composition" as the second most common efficiency measurement error in existing systems). Truven cites cases for the proposition that "[w]hen the specification criticizes certain aspects of the prior art, it operates as a disavowal of that subject matter." *SciMed Life Sys. Inc.*, 242 F.3d at 1341-45; *see alsoHoneywell Int'l, Inc. v. ITT Indus, Inc*., 452 F.3d 1312, 1319 (Fed. Cir. 2006) (". . . based on the disclosure in the written description, which demeaned the properties of carbon fibers, we conclude that the patentee thereby disavowed carbon fibers from the scope of

the '879 patent's claims.").[7] In *SciMed Life Systems*, the Federal Circuit held that the patentee disavowed a dual lumen design where the specification criticized the dual lumen configuration, the specification repeatedly described the "present invention" as a coaxial design, and the specification stated "[t]he intermediate sleeve structure defined above [coaxial design] is the basic sleeve structure for *all* embodiments of the present invention contemplated and disclosed herein." 242 F.3d at 1341-43 (emphasis in original).

The Court finds that in this case, although the specification criticizes direct standardization, there is not a clear disavowal. Disavowal requires "expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Teleflex, Inc. v. Ficosa N. Am. Corp*., 299 F.3d 1313, 1325 (Fed. Cir. 2002). "A patentee's discussion of the shortcomings of certain techniques is not a disavowal of the use of those techniques in a manner consistent with the claimed invention." *Epistar Corp. v. Int'l Trade Comm'n*, 566 F.3d 1321, 1335 (Fed. Cir. 2009) (holding that even a direct criticism of a particular technique did not rise to the level of clear disavowal). Here, unlike *SciMed*, although the specification states that using a physician's actual episode composition is a common efficiency measurement error, there is no "clear and explicit statement by the patentee" disavowing direct standardization. *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1368 (Fed. Cir. 2012).

The Court also finds it significant that the dependent claims expressly claim indirect and direct standardization. Truven's proposed construction would effectively nullify claim 7, which claims direct standardization, in violation of the Federal Circuit's instruction that "[w]e must not interpret an independent claim in a way that is inconsistent with a claim which depends from it." *Wright Med. Tech., Inc. v. Osteonics Corp*., 122 F.3d 1440, 1445 (Fed. Cir. 1997); *see also, e.g.*, *Ortho-McNeil Pharm. v. Mylan Labs*., 520 F.3d 1358, 1362 (Fed. Cir. 2008) ("[T]his court strives to reach a claim construction that does not render claim language in dependent claims

[7] Truven also argues that there is no enabling disclosure or written description support for direct standardization. The Court finds that these arguments are misplaced in the context of claim construction and that Truven may renew these arguments on a factual record.

meaningless"); *Medrad, Inc. v. MRI Devices Corp*., 401 F.3d 1313, 1317 (Fed. Cir. 2005) (rejecting proposed construction because "it is impossible to read both claim 1 and dependent claim 2 together while maintaining [the proposed] definition"); *CytoLogix Corp. v. Ventana Med. Sys., Inc*., 424 F.3d 1168, 1173 (Fed. Cir. 2005) (rejecting a proposed construction that would render dependent claim meaningless).

In addition, the "indirect standardization" limitation is the only difference between claim 1 and claim 6. "While we recognize that the doctrine of claim differentiation is not a hard and fast rule of construction, it does create a presumption that each claim in a patent has a different scope." *Comark Communications, Inc.*, 156 F.3d at 1187. "That presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim." *SunRace Roots Enter. Co. v. SRAM Corp*., 336 F.3d 1298, 1303 (Fed. Cir. 2003); *see also Wengner Mfg., Inc. v. Coating Mach. Sys., Inc*., 239 F.3d 1225, 1234 (Fed. Cir. 2001) (presumption "is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims."); *Phillips*, 415 F.3d at 1314 ("Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.").

At the hearing, counsel for Truven argued that *Enzo Biochem Inc. v. Applera Corp.*, 780 F.3d 1149 (Fed. Cir. 2015), is "on all fours" with this case, and asserted that *Enzo* stands for the proposition that disavowal trumps claim differentiation. In *Enzo Biochem*, the district court construed an independent claim of the patent-in-suit to cover both direct and indirect detection of nucleic acids. The Federal Circuit reversed and held that the claim only covered indirect detection. *Id*. at 1154-55. The Federal Circuit first examined the claim language, and held that the language of the claim only allowed for indirect detection. *See id*. at 1154 (discussing claim language).[8] The Federal Circuit also held that the specification provided additional support that

[8] The claim at issue claimed, "An oligo- or polynucleotide containing a nucleotide having the structure: [drawing] wherein B represents a 7-deazapurine or a pyrimidine moiety covalently

the claim only covered indirect detection because throughout the specification the invention was described as being capable of being practiced only through indirect detection, "the specification's only discussion of direct detection, here radioactive labeling, was exclusively in the context of discussing how indirect detection is a superior method," and the specification stated that the claimed invention was "an alternative" to direct detection. *Id*. at 1155. The Federal Circuit also noted that the district court had relied on claim differentiation to support its construction because the district court had construed three dependent claims as involving direct detection. *Id*. at 1156.[9] The Federal Circuit held that in so doing, the district court had erred because "dependent claims cannot broaden an independent claim from which they depend." *Id*.

The Court finds that *Enzo* is distinguishable in several respects. Importantly, the Federal Circuit's decision in *Enzo* rested in large part on the "plain reading" of the claim language. *Id.* at 1155. In contrast, Truven does not argue that anything in the claim language limits the claim to indirect standardization. Instead, Truven's proposed construction is based on its arguments about the patent specification and the prosecution history. Further, the disavowal in *Enzo* was based not only on the fact that the specification criticized direct detection, but also because the specification described the invention solely in terms of indirect detection and stated that the claimed invention

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bonded to the C1′-position of the sugar moiety, provided that whenever B is a 7-deazapurine, the sugar moiety is attached at the N9-position of the 7-deazapurine, and whenever B is a pyrimidine, the sugar moiety is attached at the N1-position of the pyrimidine; wherein A comprises at least three carbon atoms and represents at least one component of a signaling moiety capable of producing a detectable signal; wherein B and A are covalently attached directly or through a linkage group that does not substantially interfere with the characteristic ability of the oligo- or polynucleotide to hybridize with a nucleic acid and does not substantially interfere with formation of the signalling moiety or detection of the detectable signal, provided also that if B is 7-deazapurine, A or the linkage group is attached to the 7-position of the deazapurine, and if B is pyrimidine, A or the linkage group is attached to the 5-position of the pyrimidine; wherein one of x and y represents [drawing] and the other of x and y is absent or represents —OH or —H; and wherein z represents H— or HO—."

[9] The dependent claims read: "67. An oligo- or polynucleotide of claim 1 or 48 wherein A comprises an indicator molecule. 68. An oligo- or polynucleotide of claim 67 wherein said indicator molecule is fluorescent, electron dense, or is an enzyme capable of depositing insoluble reaction products.69. An oligo- or polynucleotide of claim 68 wherein the enzyme is selected from the group consisting of alkaline phosphatase, peroxidase and β-galactosidase.70. An oligo- or polynucleotide of claim 68 wherein the fluorescent indicator molecule is selected from the group consisting of fluorescein and rhodamine.

was an "alternative" to direct detection. Here, while the specification does criticize direct standardization, dependent claims 6 and 7 in the '726 patent expressly claim "indirect standardization" and "direct standardization."

B. "predefined set of medical conditions for a specific specialty type."

CCGroup contends that the "predefined set" limitation in the asserted claim of the '726 patent refers to a set of medical conditions defined in advance of processing. CCGroup argues that Truven's proposed definition, which includes the word "marketbasket," introduces ambiguity into the term's construction because it is unclear what "marketbasket" adds to the definition or what set of medical conditions must exist for that language to be satisfied. CCGroup notes that "marketbasket" appears in the '726 patent specification with reference to the preferred embodiment, and that the term is not in the patent claims. According to the specification, a "marketbasket consists of the most common conditions treated by each physician specialty type." '726 patent at 70:47-49.

Truven asserts that the only "predefined set of medical conditions" described in the patents is "the marketbasket," and thus that the construction needs to include a reference to the "marketbasket." Truven also argues that indirect standardization is the "marketbasket" approach described in the patent specification. As support, Truven cites language in the specification stating,

> Each medical condition in a specialty-specific marketbasket is assigned a weight factor that reflects the importance or relevance of that medical condition to the marketbasket. The weight factors are used to compute the marketbasket weighted mean and standard deviation across all medical conditions in the marketbasket. The sum of the weight factors in a marketbasket equals 1.00 (refer to the specialty-specific marketbaskets, Tables 29-60). This step is referred to as the indirect standardization rule.

'726 patent at 93:3-11. Truven argues that the inclusion of "marketbasket" in the construction would aid the jury in understanding the claims in light of the specification that teaches using "marketbaskets" as part of the inventive solution.

The Court finds that the parties' dispute about "predefined set of medical conditions" is, in large part, related to the dispute discussed *supra* about whether the claim is limited to indirect

standardization. For the reasons set forth above, the Court concludes that the claim is not limited to indirect standardization. The Court also finds that it is inappropriate to construe "predefined set of medical conditions" with reference to the "marketbasket" because the patentee claimed a "predefined set of medical conditions" and not a "marketbasket." Adopting Truven's construction would limit the claim to the preferred embodiment in violation of the Federal Circuit's instruction not to import limitations from the specification into the claims. *See Phillips*, 415 F.3d at 1323 ("[W]e have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment. That is not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.").

The Court adopts CCGroup's proposed construction and construes "calculating weighted episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type" as "calculating cost or length of care statistics for a group of medical conditions, using the relative importance of each condition to the others of the group, using only medical conditions within a set defined in advance of processing for a specific specialty type."

III. '981 Patent

Claim 13 of the '981 (with the terms at issue in bold) states:

What is claimed is:

13. A method implemented on a computer system of determining physician efficiency, the method comprising:

obtaining medical claims data stored in a computer readable medium on the computer system;

performing patient analysis using said obtained medical claims data to form episodes of care utilizing the computer system;

performing output process based on performed patient analysis utilizing the computer system, the output process comprising:

assigning episodes of care[10] to physicians; and

applying a first **maximum duration rule** utilizing at least one of a set consisting of static window periods and variable window periods to identify episodes of care;

assigning at least one physician to a report group utilizing the computer system,

determining eligible physicians and episode of care assignments utilizing the computer system;

calculating condition-specific episode of care statistics utilizing the computer system;

calculating episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type utilizing the computer system; and

determining efficiency scores for physicians from said calculated condition-specific episode of care statistics and said episode of care statistics calculated across medical conditions utilizing the computer system.

'981 patent at 108:65-109:32.

Claim 20 is the apparatus analog of claim 13 (with the terms at issue in bold) and is almost identical:

What is claimed is:

20. A non-transitory computer program product tangibly embodied in computer instructions in a computer readable medium which, when the computer instructions are executed by a computer,

determines physician efficiency, by performing the acts of:

obtaining medical claims data stored in a computer readable medium on the computer system;

performing patient analysis using said obtained medical claims data to form episodes of care utilizing the computer system;

performing output process based on performed patient analysis utilizing the computer system, the output process comprising:

assigning episodes of care to physicians; and

applying a first **maximum duration rule** utilizing at least one of a set consisting of static window periods and variable window periods to identify episodes of care;

[10] The parties have agreed that "episodes of care" should be construed as "a group of all healthcare services provided to a patient for the diagnosis, treatment, and aftercare of a specific medical condition within a time period of interest."

assigning at least one physician to a report group utilizing the computer system,

determining eligible physicians and episode of care assignments utilizing the computer system;

calculating condition-specific episode of care statistics utilizing the computer system;

calculating episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type utilizing the computer system; and

determining efficiency scores for physicians from said calculated condition-specific episode of care statistics and said episode of care statistics calculated across medical conditions utilizing the computer system.

A. "calculating episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type"

CCGroup proposes "calculating cost or length of care statistics for a group of medical conditions using only medical conditions within a set defined in advance of processing for a specific specialty type," while Truven proposes "calculating cost or length of care statistics using a predetermined, specialty-specific weight factor for each medical condition in a set of medical conditions ('the marketbasket') defined in advance of processing. This is called indirect standardization." The disputes are (1) whether "weighting" is part of the claim; (2) if weighting is part of the claim, whether the term is limited to indirect weighting; and (3) what constitutes a "predefined set of medical conditions for a specific specialty type."

CCGroup argues that unlike the similar term in the '726 patent, claims 13 and 20 of the '981 patent do not require "weighted" episode of care statistics because that word is not in the claim. CCGroup notes that in contrast, some of the dependent claims expressly claim "calculating . . weighted episode of care statistics." *See* '981 patent at 111:33-41 (dependent claims 15 and 16) In response, Truven asserts the same arguments about indirect standardization that Truven advanced with regard to claim 1 of the '726 patent.

The Court agrees with CCGroup that claims 13 and 20 do not include the limitation of weighting, and that it would be improper to import a weighted limitation from the specification into the claims. The inclusion of the "weighted" limitation in the dependent claims demonstrates

that the independent claims are not limited to calculating "weighted" episode of care statistics. *See Comark Communications*, 156 F.3d at 1187; *SunRace Roots Enter. Co.*, 336 F.3d at 1303; *see also Wengner Mfg., Inc..*, 239 F.3d at 1234; *Phillips*, 415 F.3d at 1314. The Court also notes that dependent claim 17 expressly claims utilization of direct standardization, and thus adopting Truven's proposed construction would effectively nullify that dependent claim.

For the reasons stated *supra* with regard to claim 1 of the '726 patent, the Court concludes that claims 13 and 20 are not restricted to indirect standardization, and the Court finds that reference to the "marketbasket" is improper. Accordingly, the Court construes "calculating episode of care statistics across medical conditions utilizing a predefined set of medical conditions for a specific specialty type" as "calculating cost or length of care statistics for a group of medical conditions using only medical conditions within a set defined in advance of processing for a specific specialty type."

B. "Maximum duration rule"

The asserted claims of the '981 patent include the step of "applying a first maximum duration rule utilizing at least one of a set consisting of static window periods and variable window periods to identify episodes of care." CCGroup proposes to construe the phrase "maximum duration rule" as "a rule based on a maximum time period that is used to group claim data pertaining to a patient's medical condition into an episode of care."[11] Truven proposes to construe this phrase as "rule applying a maximum number of days to the previously formed episodes of care for the purpose of thereafter calculating cost of care statistics." The primary dispute is whether (as Truven argues) the rule is applied only to previously-formed episodes of care, or whether (as CCGroup argues) the recited "maximum duration rule" is also used in the formation of episodes of care.

The parties agree that the specification discloses a preferred embodiment where the

[11] This is the construction adopted by Judge Davila of the same term in the '126 patent.

maximum duration rule is applied during the creation of an episode of care.[12] However, Truven argues that "the claims of the patent need not encompass all disclosed embodiments." *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008). Truven argues that the claim language clearly recites an alternative embodiment in which the maximum duration rule is applied after episodes of care have already been formed, and not the embodiment in which the rule is used to create episodes of care. Truven contends that claims 13 and 20 recite a method which first performs a "patient analysis" step in which episodes of care are formed: "performing patient analysis using said obtained medical claims data to form episodes of care utilizing the computer system." '981 patent at 111:5-8 & 112:1-3. Truven argues that after the "patient analysis" step during which episodes of care are formed, the claims recite the "output process" step, which is "based on performed patient analysis." The "output process" step requires "performing output process based on performed patient analysis utilizing the computer system, the output process comprising: assigning episodes of care to physicians; and applying a first maximum duration rule utilizing at least one of a set consisting of static window periods and variable window periods [to identify] episodes of care." *Id.* at 111:8-15 & 112:4-12. Thus, Truven argues, the "maximum duration rule" is necessarily applied after episodes have previously been formed.

CCGroup contends that the specification and the claims make clear that a "maximum duration rule" is applied during the process of creating an episode of care to control which medical claim records will form a particular episode of care. CCGroup argues that the specification teaches that the maximum duration rule can use at least three different types of window periods: dynamic, static and variable. *See* '981 Patent at 45:45-50 ("An acute episode of care has a finite duration and is defined by a specified time period, or window period. An embodiment of the present invention has three types of window periods for acute episodes of care."). CCGroup notes

[12] Truven asserts that CCGroup agrees that the specification discloses an alternative embodiment in which the maximum duration rule applies to previously formed episodes of care. CCGroup's position on this issue is not entirely clear from its papers, as CCGroup's opening papers suggest that such an alternative embodiment is disclosed, Dkt. No. 64 at 12:22-23, while its reply brief seems to argue otherwise. *See* Dkt. No. 68 at 12:24-13:14.

that the specification explains that a static window period functions "to define all services to include in the episode of care." *Id*. at 46:51-55. CCGroup also cites figures 3-5 as providing examples of how the dynamic, static and variable time windows can be applied to build episodes of care. *See id*. at Figure 4 (showing how static window period separates claim records for patient with upper respiratory infections who had three services in January and two services in August of same year into two different episodes of care).

CCGroup also argues that language of claims 13 and 20 teaches that the maximum duration rule is used to form episodes of care. CCGroup asserts that both claims require that the maximum duration rule apply either a static or variable window period, which the specification teaches are used to build episodes of care. *See, e.g.*, '981 patent at 111:12-15 (claim 13; "applying a first maximum duration rule utilizing at least one of a set consisting of static window periods and variable window periods [to identify] episodes of care"); *id*. at 112:7-12 (claim 20: same language). CCGroup also argues that the phrase "applying a first maximum duration rule . . . *to identify episodes of care*" means that the maximum duration rule is used to form episodes of care.

CCGroup argues that under Truven's proposed construction, under which the maximum duration rule applies only to "previously formed episodes of care," there will never be a "previously formed episode of care" because the maximum duration rule must be applied in order to create the episode of care. CCGroup provides the following example of a patient who suffers two broken arms, one at age 12 and another at age 14. "Before the application of a maximum rule, there is no way to distinguish the claim data records for the first broken arm from those for the second broken arm. There is simply a collection of medical claim data records, all of which relate to treatment for broken arms. Through application of the maximum duration rule, the services associated with her first broken arm are identified and separated from those relating to her second broken arm, based on dates of service. Only after the maximum duration rule is applied are two discrete episodes of care finally identified." Dkt. No. 68 at 11.

The Court adopts CCGroup's construction. Although Truven accuses CCGroup of ignoring the claim language, CCGroup's proposal is supported by the claim language. Claims 13 and 20 explicitly require that the maximum duration rule apply either a static or variable window

period, which the specification teaches are used to build episodes of care. In addition, both claims apply the maximum duration rule "to identify episodes of care." The parties agree that an "episode of care" is "a group of all healthcare services provided to a patient for the diagnosis, treatment, and aftercare of a specific medical condition within a time period of interest." The specification teaches that the maximum duration rule is integral to the process of organizing claim data temporally into episodes of care. Truven's proposed construction would also run contrary to the Federal Circuit's direction that "a construction that excludes a preferred embodiment is rarely, if ever, correct." *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 865 (Fed. Cir. 2004); *cf. TIP Sys., LLC.*, 529 F.3d at 1373 (affirming construction of claim that included preferred embodiment and excluded alternative embodiment).

This dispute is related to the parties' dispute about whether the steps listed in claims 13 and 20 must be performed in order. Truven contends that each step must be performed in the order listed, while CCGroup argues that although certain steps must precede others, no specific order beyond that is required. For example, CCGroup states that in claim 13, step 1 necessarily precedes step 2,[13] but that there is no reason why step 4 could not be performed before step 3 or after step 5.[14] Similarly, CCGroup asserts that steps 2 and 3 could be performed simultaneously or iteratively (step 2, then step 3, then step 2 again, then step 3 again).

The Court concludes that the claims do not require the steps to be performed in the exact order listed. "As a general rule, '[u]nless the steps of a method [claim] actually recite an order, the steps are not ordinarily construed to require one.'" *Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014) (quoting *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001)); *see also Baldwin Graphic Sys., Inc. v.*

[13] Step 1 is "obtaining medical claims data stored in a computer readable medium on the computer system" and step 2 is "performing patient analysis using said obtained medical claims data to form episodes of care utilizing the computer system."

[14] Step 3 is "performing output process based on performed patient analysis utilizing the computer system, the output process comprising: assigning episodes of care to physicians; and applying a first maximum duration rule utilizing at least one of a set consisting of static window periods and variable window periods to identify episodes of care." Step 4 is "assigning at least one physician to a report group utilizing the computer system," and step 5 is "determining eligible physicians and episode of care assignments utilizing the computer system."

Siebert, Inc., 512 F.3d 1338, 1345 (Fed. Cir. 2008) ("[A]lthough a method claim necessarily recites the steps of the method in a particular order, as a general rule the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order."). As discussed *supra*, the specification teaches that a maximum duration rule is applied during the process of creating episodes of care, and thus step 3 need not, as Truven asserts, be performed only after step 2 has concluded. *See Cybersettle, Inc. v. Nat'l Arbitration Forum, Inc.*, 243 Fed. App'x 603, 609 (Fed. Cir. 2007) ("We agree with NAF that the comparison and testing steps logically cannot begin until an offer and a demand are received. But that does not mean that the 'receiving' steps must be completed before the comparison and testing steps begin. To the contrary, the step of calculating the differences between demands and offers can occur concurrently with the receipt of multiple demands and offers. As each new pair of bids is received, the bids are compared.").

The Court finds *Mformation Technologies Inc.*, which Truven relies upon, distinguishable. In *Mformation Technologies Inc*., the patent claim disclosed a method for remotely managing a wireless device over a wireless network.[15] The Federal Circuit affirmed the district court's finding that the claim required an order-of-steps under which a connection to a server needed to be completely established before the server could transmit a command because "the separate sub-step for establishing a connection would become 'superfluous' if we concluded that a connection did not have to be established (completed) before transmission." 764 F.3d at 1399. The Federal Circuit also noted that its conclusion was consistent with the sole embodiment in the specification. *Id*. at 1400. In this case, an order-of-steps is not required in order to give meaning to each step of

[15] The claim read, "1. A method for remotely managing a wireless device over a wireless network comprising a server and the wireless device, the wireless network operable to communicatively connect the server and the wireless device, the method comprising the steps of: transmitting registration information relating to the wireless device from the wireless device to the server; verifying the registration information at the server; and without a request from the wireless device, performing the steps of: establishing a mailbox for the wireless device at the server, placing a command for the wireless device in the mailbox at the server, delivering the command from the mailbox at the server to the wireless device by establishing a connection between the wireless device and the server, transmitting the contents of the mailbox from the server to the wireless device, and accepting the contents of the mailbox at the wireless device, and executing the command at the wireless device; wherein the connection is established based on a threshold condition." *Mformation Tech., Inc.*, 764 F.3d at 1394.

the claim. Further, adopting Truven's proposed order-of-steps would be inconsistent with the preferred embodiment.

Accordingly, the Court construes the phrase "maximum duration rule" as "a rule based on a maximum time period that is used to group claim data pertaining to a patient's medical condition into an episode of care," and finds that the steps need not be performed in the exact order listed.

CONCLUSION

For the foregoing reasons and for good cause shown, the Court hereby adopts the constructions set forth in this order.

IT IS SO ORDERED.

Dated: May 13, 2016

SUSAN ILLSTON
United States District Judge

United States District Court
Northern District of California