

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

BAXTER INTERNATIONAL, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	No. 15-cv-09986
	)	
CAREFUSION CORPORATION, and BECTON,	)	
DICKINSON, AND COMPANY,	)	
	)	
Defendants.	)	
	)	
	)	

**MEMORANDUM OPINION AND ORDER**

AMY J. ST. EVE, United States District Judge:

Defendants CareFusion Corporation and Beckton, Dickinson, and Company (collectively, “CareFusion” or “Defendants”) seek to dismiss two claims brought by Plaintiff Baxter International, Inc. (“Baxter”). (R.34). Baxter’s First Amended Complaint alleges that Defendants infringed three patents relating to medical infusion pumps: U.S. Patent Nos. 5,764,034 (‘034 Patent); 5,782,805 (‘805 Patent); and 6,321,560 (‘560 Patent). (R.29). Defendants now move to dismiss Count I (‘034 Patent) and Count III (‘560 Patent) pursuant to Federal Rule of Civil Procedure 12(b)(6) for failure to recite patent eligible subject matter under 35 U.S.C. § 101. For the following reasons, the Court denies Defendants’ motion.

**BACKGROUND**

**I. The ‘034 Patent**

The ‘034 Patent, entitled “Battery Gauge For A Battery Operated Infusion Pump” was filed on April 10, 1996. (R.29-1, ‘034 Patent at 1). The ‘034 Patent lists two inventors, George Bowman and Grace Esche, and is assigned to Baxter. (*Id.*). The ‘034 Patent is directed to an

infusion pump capable of estimating the amount of time left on a battery by monitoring both the voltage available from the battery, and the amount of current flowing from the battery. (*Id.*, col. 2: 14-16, 20-23). The summary of the '034 Patent recites: “[t]he present invention provides a medical infusion pump which incorporates cost-effective, sensitive battery monitoring.” (*Id.*, col. 2: 11-13). The summary further discloses an electric circuit which enables a “sampling technique [that] alternates between sampling battery voltage and sampling current drain.” (*Id.*, col. 2: 25-28). “A method is then applied to the sampling signals by a microprocessor which determines the amount of time left under battery power.” (*Id.*, col. 2: 28-30). The specification recites that the “invention also provides several troubleshooting alert, alarm and failure messages” to health care providers. (*Id.*, col. 8: 15-16). The alert condition includes “a battery low alert, which indicates that the auxiliary battery has less than a predetermined amount of infusion time left.” (*Id.*, col. 8: 29-32). The alarm condition “indicates that the auxiliary battery charge has diminished below the level necessary to continue infusion.” (*Id.*, col. 8: 34-35).

The independent claims of the '034 Patent state:

1. An infusion pump comprising:

a pump drive mechanism for applying the pumping action to a liquid for infusion in a patient;

a battery for powering the pump drive mechanism;

a circuit which monitors the voltage and current from the battery;

a circuit responsive to the monitoring circuit which determines the remaining time of charge in the battery;

a battery alarm which occurs when the remaining time of charge in the battery is below a predetermined level;

a battery low alert which occurs when the remaining time of charge in the battery is below a predetermined level but above the battery alarm level; and

display means for displaying the remaining time of charge in the battery.

(*Id.*, col. 15: 36-50).

6. An infusion pump comprising:

an electrically powered pumping mechanism which provides pumping action for infusing a patient with a liquid;

a battery which provides electronic power to the electronically powered pump mechanism;

a circuit which monitors the voltage of the battery;

a circuit which monitors the current from the battery;

means responsive to the current-monitoring circuit and the voltage-monitoring circuit which determines the remaining time of charge in the battery;

a battery alarm which occurs when the remaining voltage left in the battery is below a predetermined level;

a battery low alert which occurs when the remaining time of charge in the battery is below a predetermined level;

a battery deplete alarm which occurs when the battery voltage or current falls below a predetermined battery deplete level; and

a display which displays the remaining time of charge in the battery.

(*Id.*, col. 15-16: 64-17).

9. A method of infusing liquid into a patient comprising:

infusing the liquid into the patient by use of an electrically powered mechanism;

powering the electronically powered mechanism with a battery;

monitoring the voltage of the battery;

monitoring the current from the battery;

determining from the voltage and current the remaining time of charge in the battery;

alarming when the remaining time of charge in battery is below a predetermined level;

alerting when the remaining time of charge in battery is below a predetermined level but above the battery alarm level; and

displaying the remaining time of charge in the battery.

(*Id.*, col. 16: 24-39).

13. An apparatus for monitoring the power of a battery, comprising:

a circuit which monitors the voltage and current from the battery;

a circuit responsive to the monitoring circuit which determines the remaining time of charge in the battery;

microprocessing means responsive to the determining circuit which calculates the remaining time of charge in the battery in accordance with the following:

$$B = (\Sigma XY) - (n * \bar{Y}) / ((\Sigma X^2) - (n * \bar{X}))$$

$$A = \bar{Y} - (B * \bar{X})$$

and

$$T = ((V - A) / B) - m$$

where

A is the intercept of voltage at time 0;

B is the slope of the voltages one time;

T is the time left to reach the voltage (V);

$\Sigma XY$  is the summation of each voltage reading (Y) multiplied by its time position (X);

m is the number of voltage values; n is the summation of all time position values;

$\Sigma X^2$  is the summation of the squares of all time position values;

$\bar{X}$  is the average of all time position values;

$\bar{Y}$  is the average of all voltage values; and

display means for displaying the remaining time of charge in the battery.

(*Id.*, col. 16-18: 50-3).

## II. The '560 Patent

The '560 Patent, entitled "Method and Apparatus For Automatically Controlling The Level of Medication" was filed on February 10, 1999. (R.29-3, '560 Patent at 1). The '560 Patent lists three inventors, Tuan Bui, Doron Levitas, and Stephen L. Axel, and is assigned to Baxter. (*Id.*). The '560 Patent is directed to "a method and apparatus for automatically adjusting the medication level for a patient . . . based on the patient's pain intensity." (*Id.*, col. 1: 6-10).

The claimed method and apparatus address a need for "automatically adjusting the medication level in response to input from a patient regarding his pain level, side effects and impairment of functionalities, without having to contact the caregiver or physician." (*Id.*, col. 2: 39-43). In particular, the specification discloses "a method and apparatus which captures relevant information pertaining to pain level, side effects and patient impairment and automatically adjusts the amount of medication, within a pre-determined level selected by the patient's physician." (*Id.*, col. 2: 52-56).

The physician or caregiver first programs the pump for a specific patient, after which point "a pain relief algorithm . . . modifies the PCA treatment in response to input regarding the patient's pain level, side effects and function impairment." (*Id.*, col. 2-3: 59-5). The infusion pump detects pain level by storing the number of pain medication requests the patient makes over a prescribed period of time, or by querying the patient directly. (*Id.* col. 3: 7-14). Similarly, either the patient—through responses to specific queries—or the health care provider may program into the infusion pump information relating to (i) side effects and/or (ii) the impairment of patient functionality. (*Id.* col. 3: 18-32). "After completion of inputting all data, the data is processed by the algorithm, and the patient's PCA medication rate is conformed to the algorithm or adjusted if indicated by the algorithm." (*Id.* col. 3: 33-36).

The independent claims of the '560 Patent state:

1. A method for automatically controlling the level of a patient's medication administered from a programmable infusion pump, comprising:

programming the infusion pump with a medication algorithm;

initiating an evaluation of the patient's medication;

obtaining information pertaining to the patient's condition;

obtaining information pertaining to the patient's current medication;

evaluating the patient's current medication and condition with the medical algorithm; and

controlling administration of the patient's medication based on the evaluation.

(*Id.*, col. 14: 6-20).

8. A routine for operating an infusion pump to automatically control the level of a patient's medication, the infusion pump comprising a controller for executing the routine and a memory for storing the routine, responsive to a request for an evaluation of the patient's current medication; comprising:

a set of patient-specific, predetermined ranges of medication stored in the memory;

a procedure for obtaining information pertaining to the patient's pain level and storing the patient's pain level information automatically;

a procedure for obtaining information pertaining to the patient's side effects and storing the patient's side effect information automatically;

a procedure for obtaining information pertaining to the patient's impairment of functionalities and storing the patient's impairment of functionalities information automatically;

a procedure for obtaining information pertaining to the patient's current medication;

a procedure for evaluating stored information of the patient's current medication, pain level, side effects and impaired functionalities with the stored set of patient-specific, predetermined ranges of medication; and

a procedure for automatically modifying delivery of the patient's medication based on the evaluation.

(*Id.*, col. 14-15: 47-6).

9. An infusion pump for administering a liquid medicant to a patients comprising:
  - a liquid injection device adapted to be connected to the patient;
  - a conduit connected to the liquid injection device;
  - a pumping mechanism for pumping the liquid medicant through the conduit and into the patient via the liquid injection device;
  - a controller for controlling the pumping mechanism, wherein the controller controls the amount of liquid medicant administered to the patient;
  - a memory storing a set of patient-specific, predetermined rates and amounts of liquid medicant to be administered to the patient;
  - a data acquiring routine for obtaining information pertaining to the patient's pain level, side effects and impairment of functionalities; and
  - a control routine for processing the data pertaining to the patient's pain level, the patient's side effects, the patient's impairment of functionalities, and a current rate and amount of liquid medicant being administered to the patient and for automatically changing the rate and amount of the liquid medicant to be administered to the patient in accordance with the set of patient-specific, predetermined ranges of medication.

(*Id.*, col. 15: 7-32).

16. A method for automatically controlling the level of a patient's medication administered from a programmable infusion pump, comprising:
  - programming the infusion pump with a set of patient specific, predetermined ranges of medication;
  - evaluating the patient's current medication and recording the patient's current medication in the infusion pump;
  - evaluating the patient's physiological conditions and recording the patient's physiological conditions in the infusion pump; and

controlling administration of the patient’s medication based on the evaluation of the patient’s current medication and physiological conditions as compared with the programmed predetermined ranges of medication.

(*Id.*, col. 16: 17-32).

## LEGAL STANDARD

### I. Rule 12(b)(6)

“A motion under Rule 12(b)(6) tests whether the complaint states a claim on which relief may be granted.” *Richards v. Mitcheff*, 696 F.3d 635, 637 (7th Cir. 2012). Under Rule 12(b)(6), a plaintiff’s “[f]actual allegations must be enough to raise a right to relief above the speculative level.” *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555, 127 S.Ct. 1955, 167 L.Ed.2d 929 (2007). Put differently, a “complaint must contain sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S.Ct. 1937, 173 L.Ed.2d 868 (2009) (quoting *Twombly*, 550 U.S. at 570).

In reviewing a complaint, the Court must accept all “factual allegations as true, and must draw all reasonable inferences in the plaintiff’s favor.” *Virnich v. Vorwald*, 664 F.3d 206, 212 (7th Cir. 2011); *see also Huri v. Office of the Chief Judge of the Circuit Court of Cook Cty.*, 804 F.3d 826, 829 (7th Cir. 2015). The Court may also “consider documents attached to the pleading without converting the motion into one for summary judgment.” *Runnion ex rel. Runnion v. Girl Scouts of Greater Chicago and Nw. Ind.*, 786 F.3d 510, 528, n. 8 (7th Cir. 2015) (citing *Wigod v. Wells Fargo Bank, N.A.*, 673 F.3d 547, 556 (7th Cir. 2012) & Fed. R. Civ. P. 10(c) (“A copy of any written instrument which is an exhibit to a pleading is a part thereof for all purposes”)); *see also Cole v. Milwaukee Area Technical Coll. Dist.*, 634 F.3d 901, 903 (7th Cir. 2011) (“The consideration of a Rule 12(b)(6) motion is restricted to the pleadings, which consist here of the complaint, any exhibits attached thereto, and the supporting briefs”) (citations omitted). Where



an exhibit conflicts with the allegations of the complaint, however, the exhibit typically controls. See *Centers v. Centennial Mortg., Inc.*, 398 F.3d 930, 933 (7th Cir. 2005); *Abcarian v. McDonald*, 617 F.3d 931, 933 (7th Cir. 2010).

## II. Patent Eligibility under 35 U.S.C. § 101

Section 101 of the Patent Act defines the subject matter eligible for patent protection, providing:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. The Supreme Court has long recognized that “this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp Pty Ltd. V. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014) (citing *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107, 2116 (2013)). Concerns of pre-emption drive this exclusionary principle. See *id.* (citing *Bilski v. Kappos*, 561 U.S. 593, 612 (2010)) (explaining how upholding the patent “would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea”). The Supreme Court has repeatedly emphasized the concern for inhibiting “further discovery by improperly tying up the future use of these building blocks of human ingenuity.” *Id.* (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289, 1301 (2012) (quotations omitted)).

This exclusionary principle is construed carefully, however, “lest it swallow all of patent law.” *Id.* (citing *Mayo*, 132 S.Ct. at 1293-94). “[A]n invention is not rendered ineligible for patent simply because it involves an abstract concept.” *Id.* (citing *Diamond v. Diehr*, 450 U.S. 175, 187 (1981)). Inventions that apply “such concepts to a new and useful end . . . remain eligible for patent protection.” *Id.* (citing *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)); see

*also Diehr*, 450 U.S. at 187 (“an *application* of a law of nature or mathematical formula to a known structure or process may be well deserving of patent protection”). “Accordingly, in applying the § 101 exception, [courts] must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into a patent-eligible invention.” *Alice*, 134 S.Ct. at 2354 (quotations and citations omitted).

The Supreme Court has thus established a two-step framework to guide lower courts in distinguishing between “patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S.Ct. at 2355; *Mayo*, 132 S.Ct. at 1294, 1296-98. First, the court will “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 134 S.Ct. at 2355. If so, the court must then search for an “inventive concept” -- “*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.’” *Id.* (citing *Mayo*, 132 S.Ct. at 1294). In conducting this secondary analysis, the court must “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (citing *Mayo*, 132 S.Ct. at 1298, 1297). The central inquiry is, “what else is there in the claims before” the court? *Id.*

## ANALYSIS

### I. Addressing Patent Eligibility on a Motion to Dismiss

Patent eligibility<sup>1</sup> is a threshold issue of patentability and a question of law for the court. *See Bilski*, 561 U.S. at 621; *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). The Federal Circuit has treated Section 101 analyses like a jurisdictional inquiry, encouraging district courts to assess patent eligibility “at the outset of litigation” to preserve judicial resources. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717-19 (Fed. Cir. 2014) (Mayer, J., concurring); *see also Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015) (affirming district court dismissal of patent infringement complaints on patent ineligibility grounds); *Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1344 (Fed. Cir. 2014) (affirming Section 101 dismissal at the pleadings stage); *Chamberlain Grp., Inc. v. Linear LLC*, 114 F. Supp. 3d 614, 623-24 (N.D. Ill. 2015) (reciting recent motions to dismiss on Section 101 grounds). The Federal Circuit has looked to relevant intrinsic records, including prosecution histories, in addressing Section 101 patent eligibility. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1377-78 (Fed. Cir. 2015). In such analysis, courts use the claims interpretation most favorable to the patentee. *See Content Extraction*, 776 F.3d at 1349.

The Federal Circuit has clarified that, “in many cases,” the “evaluation of a patent claim’s subject matter eligibility under § 101 can proceed even before a formal claim construction.” *Genetic Techs. Ltd. v. Merial L.L.C.*, No. 2015-1202, 2016 WL 1393573, at \*3 (Fed. Cir. Apr. 8, 2016). Here, neither party has challenged the propriety of determining patent

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<sup>1</sup> Patent *eligibility* does not mean *patentability* under, *e.g.*, 35 U.S.C. §§ 102 and 103. CareFusion has not argued that the ‘034 Patent or the ‘560 Patent are invalid as anticipated by or obvious over prior art. Accordingly, the Court’s opinion regarding patent eligibility does not speculate on the validity or invalidity of the claims at issue here.

eligibility under Section 101 prior to formal claim construction. Indeed, neither party raises a claim construction dispute relevant to the eligibility issue. The Court may therefore “properly decide the question of patent eligibility without first construing the claim terms.” *Joao Control & Monitoring Sys., LLC v. Telular Corp.*, No. 14 C 9852, 2016 WL 1161287, at \*6 (N.D. Ill. Mar. 23, 2016); *see also Genetic Techs. Ltd.*, 2016 WL 1393573 at \*3 (“We have repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion”); *Content Extraction*, 776 F.3d at 1349 (recognizing that “claim construction is not an inviolable prerequisite to a validity determination under § 101”); *Intellectual Ventures I LLC v. Erie Indem. Co.*, 134 F. Supp. 3d 877 (W.D. Pa. 2015) (“If the Court can divine the requisite understanding without claim construction . . . claim construction is not required”).

## **II. Section 101 Patent Eligibility**

### **A. Statutory Subject Matter**

As an initial matter, the Court finds that both claimed inventions fall within a category of statutory subject matter under 35 U.S.C. § 101. The ‘034 Patent is directed to an infusion pump capable of estimating the amount of time left on a battery by monitoring both the voltage available from the battery, and the amount of current flowing from the battery. (R.29-1, ‘034 Patent col. 2: 14-16, 20-23). The ‘560 Patent is directed to “a method and apparatus for automatically adjusting the medication level for a patient . . . based on the patient’s pain intensity.” (R.29-3, ‘560 Patent col. 1: 6-10). As such, both fall under Section 101. *See* 35 U.S.C. § 101 (“Whoever invents or discovers any . . . process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor”).

The question remains, however, whether the claimed inventions are directed to an exception to patent eligibility – that is, to a law of nature, a natural phenomenon, or an abstract idea. *See Alice*, 134 S.Ct. at 2354. CareFusion argues that both patents are directed to abstract ideas. As such, the Court first addresses, under *Alice*, whether the claims are directed to patent-ineligible abstract ideas; and, if so, whether those claims include an inventive concept, rendering them patent eligible under Section 101. *See id.* at 2355. Before addressing each patent, however, the Court examines applicable legal principles in the post-*Alice* landscape.

### **B. Legal Principles Concerning Abstract Ideas**

An idea is abstract if it has “no particular concrete or tangible form.” *Ultramercial*, 772 F.3d at 715; *see also Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1333 (Fed. Cir. 2015) (same). The Supreme Court has clarified that mathematical algorithms, as well as fundamental economic and conventional business practices, are abstract ideas. *See, e.g., Alice*, 134 S.Ct. at 2356; *Bilski*, 561 U.S. at 611; *see also OIP Techs.*, 788 F.3d at 1362 (“This concept of ‘offer based pricing’ is similar to other ‘fundamental economic concepts’ found to be abstract ideas”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (“the patent claims are directed to an abstract idea: tracking financial transactions to determine whether they exceed a pre-set spending limit (i.e., budgeting)”; *Snowcast Sols. LLC v. Endurance Specialty Holdings, Ltd.*, No. 15 CV 5305, 2016 WL 1161299, at \*2 (N.D. Ill. Mar. 23, 2016) (“Both independent claims describe ‘[a] computer implemented method’ for ‘the risk management and cost containment of weather-related services’ — i.e., hedging”). In addition, claims that “simply instruct the practitioner to implement the abstract idea . . . on a generic computer” are also abstract. *See id.*; *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255-56 (Fed. Cir. 2014).

The Federal Circuit has “on numerous occasions . . . examined claims directed to abstract ideas.” *Versata Dev. Grp.*, 793 F.3d at 1333. Post-*Alice* decisions confirm that claims directed to “collecting, recognizing, and storing data” constitute abstract ideas. *Id.* at 1333-34 (citing *Content Extraction*, 776 F.3d 1343); see also *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (“The above claim thus recites an ineligible abstract process of gathering and combining data that does not require input from a physical device”); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (“the character of the claimed invention is an abstract idea: the idea of retaining information in the navigation of online forms”); *Joao Control & Monitoring Sys.*, 2016 WL 1161287 at \*7 (recognizing that, “in a number of recent decisions, courts have invalidated patents directed to the idea of monitoring and communicating information”). Indeed, post-*Alice*, software and business method patents integrating computer-assisted processes have faced Section 101 scrutiny in both this District and the Federal Circuit. See *O2 Media, LLC v. Narrative Sci. Inc.*, No. 15 C 05129, 2016 WL 738598, at \*3-4 (N.D. Ill. Feb. 25, 2016) (collecting cases). In *Versata*, for example, the Federal Circuit affirmed the ineligibility of a patent entitled “method and apparatus for pricing products in multi-level product and organizational groups.” *Versata*, 793 F.3d at 1311. In so holding, the *Versata* court reasoned that “[u]sing organizational and product group hierarchies to determine a price is an abstract idea that has no particular concrete or tangible form or application.” *Id.* at 1333.<sup>2</sup>

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<sup>2</sup> The *Versata* patentee described the claimed “apparatus” as an “apparatus for determining a price of a product offered to a purchasing organization” that “includes computer program instructions capable of performing the same method steps recited in claim 27.” *Id.* at 1312, 1333 (reciting Claim 29). The Federal Circuit ultimately found that, “[v]iewed as a whole, the claims simply recite the concept of price determination by using organizational and product group hierarchies as performed by a generic computer.” *Id.* at 1334.

These decisions further confirm that the addition of “purely conventional” computer functionality to an otherwise ineligible abstract idea does not render it patent eligible. *See Versata Dev. Grp.*, 793 F.3d at 1334 (noting that “[t]his court found similar claims to be ineligible despite the recitation of a general purpose computer or the Internet” in *Content Extraction, Ultramercial, Intellectual Ventures I LLC*, and *OIP Technologies*); *see also Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324-25 (Fed. Cir. 2016) (“Instead, the claims ‘add’ only generic computer components such as an ‘interface,’ ‘network,’ and ‘database.’ These generic computer components do not satisfy the inventive concept requirement”); *DDR Holdings*, 773 F.3d at 1259 (recognizing as ineligible claims that “recite a commonplace business method aimed at processing business information, applying a known business process to the particular technological environment of the Internet, or creating or altering contractual relations using generic computer functions and conventional network operations”) (citations omitted).

On the other hand, however, the Federal Circuit has also recognized that, where a claimed patent “purport[s] to improve the functioning of the computer itself” or “[to] effect an improvement in any other technology or technical field,” it may be eligible for patent protection. *See Mortgage Grader*, 811 F.3d at 1325 (citing *Alice*, 134 S.Ct. at 2359). Indeed, the Federal Circuit has upheld the eligibility of claimed patents purporting to solve a problem unique to the Internet. *See id.* (citing *DDR Holdings*, 773 F.3d at 1257). In addition, the Federal Circuit has acknowledged that patent claims adequately tied to “a particular machine or apparatus” may be patent eligible. *See id.* (citing *Bilski*, 561 U.S. at 601). This view is in accord with Supreme Court precedent confirming that, “when a claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is

performing a function which the patent laws were designed to protect . . . then the claim satisfies the requirements of § 101.” *Diehr*, 450 U.S. at 192; *Alice*, 134 S. Ct. at 2358 (“the claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer”); *Versata*, 793 F.3d at 1334 (noting the same).

With these principles in mind, the Court examines each challenged patent.

### **III. The ‘034 Patent Is Directed to Patent-Eligible Subject Matter**

#### **A. The ‘034 Patent Claims Are Not Directed to Abstract Ideas**

##### **1. Limiting the Section 101 Analysis**

CareFusion first argues that the ‘034 Patent is directed to the unpatentable abstract idea of calculating the remaining time of charge on a battery, based on well-known voltage and current measurements. (R.35, Opening Br. at 12-13). According to CareFusion, “claims directed to simply performing mathematical calculations on a microprocessor are unpatentable abstract ideas.” (*Id.*).

CareFusion essentially asks the Court to limit its Section 101 analysis to what the United States Patent and Trademark Office (“USPTO”) examiner found to be novel about the ‘034 Patent over the prior art – that is, Baxter’s claim regarding the remaining *time* of charge, rather than the remaining *level* of charge itself. (R.35, Opening Br. at 5; 12-13; R.35-2, ‘034 Patent Notice of Allowance, attached as Exhibit 11 to the Steinert Decl.). In response, Baxter argues that CareFusion’s request is improper: limiting the claim to a single element—a calculation of time—ignores the ‘034 Patent’s “tangible components,” including a medical infusion pump, a battery, a battery alarm, a display, and electrical circuits. According to Baxter, these “tangible components within the improved infusion pump elevate the ‘034 Patent claims beyond the naked abstract ideas rejected by courts.” (R.37, Response Br. at 11-12). CareFusion, in turn, replies



that the limitation is proper: courts *do* examine prior art “to determine what claim elements were allegedly invented by the patentee [versus] what are merely well-understood, routine, conventional activities previously known to the industry.” (R.38, Reply Br. at 11). According to CareFusion, the aforementioned “tangible components” are simply well-known parts of an infusion pump and a battery monitor, described generically. (*Id.* at 6-7).

The Court recognizes that the “§ 101 patent-eligibility inquiry and . . . the § 102 novelty inquiry might sometimes overlap.” *Mayo*, 132 S.Ct. at 1304. The Supreme Court has expressly declined, however, “the invitation to substitute §§ 102, 103, and 112 inquiries for the better established inquiry under § 101.” *Id.* Although both *Alice* and *Mayo* invoked the “well-understood, routine, and conventional” language, they did so in the context of describing—under step two of the *Alice/Mayo* test—why the addition of routine steps by a human or a generic computer<sup>3</sup> does not transform an otherwise unpatentable method into a patent-eligible application. *Mayo*, 132 S.Ct at 1298-1302; *Alice*, 134 S.Ct at 2357-60. This is distinct from what CareFusion argues here – that the hardware components recited by Baxter are “well-understood, routine, and conventional.” CareFusion identifies no precedent entitling a court to limit its Section 101 analysis to “novel” features while ignoring the tangible components of a claimed patent. Indeed, the majority opinion in *Diehr* appears to caution against such a view. *See* 450 U.S. at 193 n.15 (“In order for the dissent to reach its conclusion it is necessary for it to read out of respondents’ patent application all the steps in the claimed process which it determined were not novel or ‘inventive.’ That is not the purpose of the § 101 inquiry . . .”).<sup>4</sup>

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<sup>3</sup> *E.g.*, administering, adjusting, storing, measuring, monitoring, implementing, applying, determining.

<sup>4</sup> The Supreme Court’s later decisions in *Alice* and *Mayo* do not address this footnote in *Diehr*.

CareFusion is correct that the Supreme Court has looked to the novel features of a claimed patent in assessing Section 101 eligibility. *See, e.g., Parker v. Flook*, 437 U.S. 584, 588 (1978) (“We also assume, since respondent does not challenge the examiner’s finding, that the [mathematical] formula is the only novel feature of respondent’s method. The question is whether the discovery of this feature makes an otherwise conventional method eligible for patent protection”). Even so, the *Flook* Court acknowledged “that a patent claim must be considered as a whole,” finding the claimed method unpatentable “not because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention.” *Id.* at 594. Further, the claimed patent in *Flook*, unlike here, had no specific application. Rather, the claims “cover[ed] a broad range of potential uses of the method.” *Id.* at 586; *see also Mayo*, 132 S.Ct. at 1299 (interpreting *Flook* and noting that “the other steps in the process did not limit the claim to a particular application”); *see also Benson*, 409 U.S. at 64 (holding unpatentable a claim for a mathematical formula “not limited to any particular art or technology, to any particular apparatus or machinery, or to any particular end use”).

Here, the Court considers Baxter’s patent claims as a whole. *See Diehr*, 450 US. at 188 (“In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole”).

## **2. Consideration of the ‘034 Patent**

Viewing the ‘034 Patent as a whole, the Court finds that its claims are not directed to abstract ideas. The claims of the ‘034 Patent are directed to a concrete, tangible instrument that utilizes a sampling detection technique, measuring battery voltage and current drain, to determine the time of remaining battery life and to issue applicable alert messages. (R.29-1,

‘034 Patent col. 2: 20-30, col. 8: 15-16). Accordingly, the claims are drawn to patentable subject matter, not to abstract ideas. *See Ultramercial*, 772 F.3d at 715 (an idea is abstract if it has “no particular concrete or tangible form”).

CareFusion argues that “claims that merely replace human thought with a computer” do not pass step one of the *Alice/Mayo* test. (R.35, Opening Br. at 13). CareFusion fails to specify, however, how the human mind would alternately detect voltage output and current flow from a battery to perform the requisite calculation. *Contra CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370-73 (Fed. Cir. 2011) (in a case concerning a patent claim covering reading Internet records associated with credit card transactions, listing out credit card numbers, and using logical reasoning to infer credit card fraud, holding: “All of claim 3’s method steps can be performed in the human mind, or by a human using a pen and paper”). Here, Baxter points to a specific electric circuit—which CareFusion ignores—constructed in accordance with the ‘034 Patent principles and capable of performing such functions. (*E.g.*, R.29-1, ‘034 Patent at Fig. 11 and 12, col. 2: 47-52, col. 10: 50-56 (“[t]he battery gauge circuit further includes an analog switch U3, which selects the four inputs to the circuit . . . The analog switch consists of two sections U3A and U3B. The four inputs are the high-voltage range, low-voltage range, high-current range and lower current range”). This is not the type of “computational method[] which can be performed *entirely* in the human mind” and which embodies the “basic tools of scientific and technological work that are free to all men.” *See CyberSource*, 654 F.3d at 1373 (emphasis in original) (citation omitted).

The use of a microprocessor, moreover, to calculate “the amount of time left under battery power,” (R.29-1, col. 2: 28-30), does not itself render the ‘034 Patent an abstract idea, particularly where CareFusion points to no evidence that the human mind could perform such

calculation entirely on its own. *See CyberSource*, 654 F.3d at 1376 (“This is entirely unlike cases where, as a practical matter, the use of a computer is required to perform the claimed method . . .”). Further, that “voltage measurements, current measurements, battery gauges, and low-battery alerts were all well-known long before Baxter filed its patent application,” (R.35, Opening Br. at 12; R.38, Reply Br. at 14-15), does not alter the Court’s Section 101 analysis here. Such argument is more appropriate at the patent validity stage, as a question of what constitutes the prior art and whether the ‘034 Patent claims are novel in light of the prior art. *See Diehr*, 450 U.S. at 190 (“The question therefore of whether a particular invention is novel is ‘wholly apart from whether the invention falls into a category of statutory subject matter’”) (citation omitted). Here, Baxter has anchored the claimed subject matter to a concrete form, and to a particular application, thus rendering it patent eligible. *Contra Digitech*, 758 F.3d at 1349 (affirming patent ineligibility where the “asserted claims are not directed to any tangible embodiment of this information . . . or claim any tangible part of the digital processing system”).

Furthermore, the ‘034 Patent discloses a medical infusion pump “which incorporates cost-effective, sensitive battery monitoring” and which is “capable of providing an accurate estimate of the amount of time left . . . to health care providers.” (R.29-1, ‘034 Patent col. 2: 1-5). These claimed attributes improve upon existing infusion pump technology, (*id.* col 1: 38-67), weighing in favor of a finding of patent eligibility. *See Versata*, 793 F.3d at 1334 (noting that patent eligible claims aim to “improve some existing technological process or solve some technological problem in conventional industry practice”); *see also Chamberlain*, 114 F. Supp. 3d at 627, 630. CareFusion argues that *Chamberlain* is inapposite because, here, “there is no piece of allegedly new technology recited in the claims.” (R.38, Reply Br. at 13). The Court’s decision in *Chamberlain*, however, did not rest upon the recitation of a specific piece of new

technology. Rather, in upholding patent eligibility, the Court looked, in part, to the patents' integration between garage door openers and either computer networks or alarm systems as an *improvement* within the existing state of garage door technology. 114 F. Supp. 3d at 627, 630. The same principle applies here. *See also Diehr*, 450 U.S. at 181 (upholding the eligibility of claims directed to “an improved process for molding rubber articles by solving a practical problem which had risen in the molding of rubber products”).

CareFusion likens the '034 Patent claims to the claims held unpatentable in *Neochloris, Inc. v. Emerson Process Mgmt. LLLP*, No. 14 C 9680, 2015 WL 5951753 (N.D. Ill. Oct. 13, 2015) (Chang, J.). This comparison is unavailing. In *Neochloris*, the court examined a claimed method for collecting, storing, monitoring, and processing water quality data. *Id.* at \*2.<sup>5</sup> The *Neochloris* court observed that, “at bottom, the claims cover the general process of observing, analyzing, monitoring, and alerting that can be done entirely by the human mind and by using pen and paper[.]” thus failing step one of the *Alice/Mayo* test. *Id.* at \*4. Additionally, the use of a “monitoring computer” and “any software” to analyze the data did not save the patentee’s claims under step two of the *Alice/Mayo* test. *Id.* at \*6. Here, contrary to CareFusion’s suggestion, the '034 Patent claims are not drawn to the general idea of monitoring and communicating information, nor do they rely upon intermediary, generic computer functionality. Rather, the '034 Patent claims concern a self-contained apparatus—a medical infusion pump—

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<sup>5</sup> A representative claim in *Neochloris* recited: “A process for real-time monitoring of a water treatment facility comprising the steps of: a) collecting operational data from said facility; b) providing a monitoring computer at a remote location from the facility; c) transferring said data over internet communication lines to the computer; d) providing software with the monitoring computer to operably analyze the data and to detect ongoing and predict future waste water treatment process failure events; and e) sending an alarm signal from the monitoring computer to the facility to provide warning of the process failure events” *Id.* at \*2 (reciting Claim 13). By contrast, here, the '034 Patent recites an infusion pump comprised of an electrically powered pumping mechanism, electrical monitoring circuits, a battery, and a display, among other components. (R.29-1, '034 Patent col. 15-16: 64-17).

capable of collecting battery voltage and current drain readings, processing this information to calculate the remaining time of charge, and sending an alert or alarm notification. (R. 29-1, ‘034 Patent col. 2: 20-25). *Neochloris* is thus distinguishable.

In sum, the Court finds that the ‘034 Patent claims are not directed to abstract ideas.

### **B. The ‘034 Patent Includes an Inventive Concept**

Even if considered an abstract idea, moreover, the ‘034 Patent includes an inventive concept, rendering it patent eligible under Section 101. As noted above, the second step of the *Alice/Mayo* test requires the Court to determine whether an otherwise ineligible concept includes additional elements—considered both “individually and as an ordered combination”—that transform the claim into something “significantly more than a patent upon the ineligible concept itself.” *Alice*, 134 S.Ct. at 2355. The ‘034 Patent passes this test.

CareFusion characterizes the ‘034 Patent as directed to the abstract ideas of monitoring, calculating, and transmitting information. (R.35, Opening Br. at 12; R.38, Reply Br. at 1). This characterization, however, ignores the claims’ ties to mechanical and electrical components. *Contra Versata*, 793 F.3d at 1331 (affirming ineligibility where the claimed patent “represents a disembodied concept . . . it is little more than determining a price, essentially a method of calculating”).<sup>6</sup> These ties transform any abstract concept of “calculating the remaining time of charge” into something “significantly more” than mere calculation, rendering it patent-eligible subject matter. Furthermore, as noted above, the ‘034 Patent claims do not rely upon the “non-specific computer implementation of purely conventional steps” to reach inventive concept status. *Contra Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, 78 F. Supp. 3d

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<sup>6</sup> As noted above, the patents at issue in *Versata* had “no particular concrete or tangible form or application.” 793 F.3d at 1333.

884, 890 (N.D. Ill. 2015), *aff'd*, No. 2015-1411, 2015 WL 9461707 (Fed. Cir. Dec. 28, 2015) (holding that the addition of “commonplace computer components,” such as a “data storage unit,” a “data processing system,” and a “communications controller,” was insufficient to transform an otherwise ineligible concept into a patent-eligible application).

In addition, the ‘034 Patent’s ties to mechanical and electrical devices—specifically, infusion pumps and/or electric circuitry—satisfies the machine-or-transformation test, further confirming the patent-eligible nature of the claims. Although not the “sole test” for determining § 101 eligibility of a claimed process, the machine-or-transformation test remains a “useful and important clue” to guide the Court’s analysis. *Bilski*, 561 U.S. at 604; *Bancorp Servs., LLC v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012). This test provides that a claimed process can be patent-eligible under § 101 if: “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc), *aff'd*, *Bilski*, 561 U.S. at 593. Here, the ‘034 Patent claims are “tied to a particular machine or apparatus,” function within their machine components, and ultimately alter the pump’s alert status. *See SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010) (concluding that a claimed GPS receiver satisfied the machine-or-transformation test because it “played a significant part in permitting the claimed method to be performed”). Here, as in *SiRF Technology*, the human mind cannot perform the requisite time-of-charge calculation, if at all, without the use of the patent’s mechanical and/or electrical devices. *See id.* at 1333 (“We are not dealing with a situation in which there is a method that can be performed without a machine”); *contra CyberSource*, 654 F.3d at 1376 (“it is clear in the present case that one could mentally perform the fraud detection method that underlies both claims . . .”). The ‘034 Patent thus satisfies the machine-or-transformation test.

Based on the foregoing analysis, the Court finds the '034 Patent to be patent eligible under Section 101.

#### **IV. The '560 Patent Is Directed to Patent-Eligible Subject Matter**

##### **A. The '560 Patent Claims Are Not Directed to Abstract Ideas**

Regarding the '560 Patent (“Method and Apparatus For Automatically Controlling The Level of Medication”), CareFusion first argues that it is directed to the unpatentable abstract idea of calculating a patient’s medication dose. According to CareFusion, “simply replac[ing] the mental process engaged in by a physician or other caregiver with an algorithm executed on a processor” does not constitute patent-eligible subject matter. (R.35, Opening Br. at 7).

##### **1. Limiting the Section 101 Analysis**

Here, again, CareFusion asks the Court to ignore “all of the infusion pump hardware recited in the ['560 Patent] claims” because the USPTO recognized such hardware as “well known in the art.” (*Id.* at 8, 3-5 (citing prosecution history); R.38, Reply Br. at 4, 8-12). For the reasons stated above with respect to the '034 Patent, however, the Court declines this blanket invitation and considers the '560 Patent as a whole.

##### **2. Consideration of the '560 Patent**

Viewing the '560 Patent as a whole, the Court finds that its claims are not directed to an abstract idea or to the generic computer implementation of an abstract idea. Rather, the '560 Patent claims incorporate physical and tangible components directed towards a particular application – specifically, an improved infusion pump system capable of automatic, dynamic adjustment of a patient’s medicine based on his or her condition. (R.29-3, '560 Patent col. 1: 6-10). Claim 9, for example, claims “[a]n infusion pump” with concrete components such as a liquid injection device, a conduit, a pumping mechanism, a controller for the pumping



mechanism, and a memory component storing patient-specific data. (*Id.*, col. 15: 7-32). As with the ‘034 Patent, the ‘560 Patent is thus directed to a concrete and tangible form, “expressly limited to specific intravenous pumps.” (R.37, Response Br. at 8 n.4). This concrete and tangible form, and discrete field of application, distinguishes the ‘560 Patent from the broad, disembodied “data collection” or “data processing” patents held ineligible by a number of courts in recent years. *See, e.g., Versata*, 793 F.3d at 1333-34 (attempting to patent a “conceptual framework for organizing information”); *Content Extraction*, 776 F.3d at 1345 (attempting to patent a “method of processing information from a diversity of types of hard copy documents”); *CyberSource*, 654 F.3d at 1368 (attempting to patent “any method or system” for detecting credit card fraud by obtaining information related to credit card transactions and corresponding Internet addresses); *Digitech*, 758 F.3d at 1349 (attempting to patent “a collection of information; specifically, a description of a device dependent transformation of spatial and color information”); *Internet Patents Corp.*, 790 F.3d at 1344-45 (attempting to patent “methods of entering information into online application forms”); *Joao Control & Monitoring*, 2016 WL 1161287 at \*1-4 (attempting to patent a “monitoring apparatus” for monitoring and/or controlling “physical property from a remote location through a network of devices connected to the ‘Internet or World Wide Web’”); *O2 Media*, 2016 WL 738598 at \*5 (attempting to patent an “an automated system that retrieves selected financial data from the Internet, analyzes and organizes that data, and produces an output file consisting either of a report recommending specific transactions or a natural language news story reporting and analyzing the relevant data”).<sup>7</sup>

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<sup>7</sup> Indeed, the ‘560 Patent claims are not the type of “business method patents involving computer-assisted processes” which, of recent, have faced eligibility challenges in this District and the Federal Circuit. *See O2 Media*, 2016 WL 738598 at \*3-4.

In addition, the hardware and method components of the '560 Patent function together to respond to a specific patient's condition and to adjust medication dosage, all in real time. (R.29-3, '560 Patent col. 2: 36-49). The '560 Patent thus addresses the need for dynamic medication adjustment without recourse to a caregiver or physician. (*Id.*). This stated improvement in infusion pump technology weighs toward a finding of patent eligibility. *See Mortgage Grader*, 811 F.3d at 1325; *Diehr*, 450 U.S. at 181.

CareFusion argues that the '560 Patent does nothing more than “record[] the physician’s treatment plan in electronic memory as opposed to a paper chart.” (R.35, Opening Br. at 9). The Court acknowledges that the '560 Patent speaks to the input of human thought – specifically, a physician pre-programs the pump and provides the specific pain relief algorithm for a given patient. (R.29-3, col. 2-3: 59-5, col. 11: 34-42). In addition, either the physician or the patient programs into the pump data concerning side effects and/or patient functionality. (*Id.* col. 3: 18-32). Recognizing this, CareFusion directs the Court’s attention to *SmartGene, Inc. v. Advanced Biological Labs., SA*, 852 F. Supp. 2d 42 (D.D.C. 2012), *aff’d* 555 Fed. App’x. 950 (Fed. Cir. 2014), to advance its argument in favor of dismissal. Ultimately, however, the Court finds this comparison unavailing.

In *SmartGene*, the district court granted summary judgment on patent ineligibility grounds. 852 F. Supp. 2d 42. The patents at issue related to “a system, method, and computer program for guiding the selection of therapeutic treatment regimens for complex disorders . . . by ranking available treatment regimens and providing advisory information.” *Id.* at 45. Specifically, a physician would input patient information into a “computing device” that had recorded prior treatment information. *Id.* The computing device would then process that information against, first, a database containing different treatment regimens, and, second,

against a database of expert rules. *Id.* The computing device would then generate a “ranked listing of available therapeutic treatment regimens for said patient” along with “advisory information” for each treatment regimen, as drawn from a third database. *Id.* at 45-46. The *SmartGene* court held that the “patents-in-dispute do no more than describe . . . an abstract mental process engaged in routinely, either entirely within a physician’s mind, or potentially aided by other resources in the treatment of patients.” *Id.* at 55.

Baxter argues that, although the *SmartGene* patent and the ‘560 Patent each concern patient evaluation and treatment, the similarities end there. Specifically, the *SmartGene* patents concerned a “disembodied, computerized method” for selecting treatment plans—an activity routinely undertaken by physicians—and “did not involve automatically and physically altering the operational state of a complex medical device, as the ‘560 Patent does.” (R.37, Response Br. at 8 n.4).

The Court agrees with Baxter. The claimed invention in *SmartGene* was a generic “computing device” that suggested a course of action for physicians based on cross-referencing three databases. Here, by contrast, the ‘560 Patent has a tangible form and is capable of receiving evaluative data, distributing a medication dosage in accordance with said evaluation, and adjusting this dosage in response to changes in the patient’s condition. (*See* R.29-3, ‘560 Patent col. 2: 36-48). Apart from the physician’s input in programming the device and entering certain patient information, the claimed process—most significantly, the real-time adjustment of a patient’s medication based on pain level sensors—is independent of the physician or caregiver. (*Id.*, col. 3: 7-14). Accordingly, the ‘560 Patent covers more than a mere evaluative and advisory process “that is performed in doctors’ offices every day.” *SmartGene*, 852 F. Supp. 2d at 56-57 (“A doctor speaks with a patient, who describes his or her ailments. The doctor recalls or looks

up possible treatment regimens, and then advises the patient about the treatment regimen options, and the doctor’s recommendation for the patient”).

The ‘560 Patent is more than a substitute means of evaluating and computing proper medication dosage. It is an improvement in infusion pump technology, constituted by physical and tangible components, addressing the need for automatic and dynamic medicinal adjustment. (R.29-3, ‘560 Patent col. 2: 39-43). The Court therefore finds that the ‘560 Patent claims are not directed to abstract ideas.

**B. The ‘560 Patent Includes an Inventive Concept**

Even if considered an abstract idea, moreover, the ‘560 Patent includes an inventive concept, rendering it patent eligible under Section 101. CareFusion’s remaining arguments on this issue do not convince the Court to hold otherwise.

First, CareFusion argues that obtaining, inputting, and storing patient information, and adjusting treatment on the basis of such information, is a mental process regularly performed by physicians, and therefore cannot constitute an inventive concept. The ‘560 Patent claims, however, include additional elements that transform the nature of the claims into something “significantly more” than CareFusion’s purported abstract idea. Specifically, the ‘560 Patent claims include a means of automatically modifying the pain control analgesic mode, such that “the programmable infusion pump stores the number of bolus requests by the patient and whether or not they resulted in delivery of a bolus over a prescribed period of time.” (R.29-3, col. 3: 9-11). The ‘560 Patent claims then use this bolus-request metric to determine a patient’s pain level and to adjust his or her pain medication dosage accordingly. (*Id.*, col. 2: 52-55; col. 3: 7-14). In this way, the ‘560 Patent claims provide a dynamic means of adjusting pain medication dosage in response to a patient’s physical actions and without recourse to a physician – an

attribute that goes beyond mere “improved speed or efficiency[.]” *Intellectual Ventures I LLC*, 792 F.3d at 1367. This additional element thus constitutes an inventive concept beyond “the abstract idea of determining changes to a patient’s medication dosage by evaluating the patient’s current medication and condition . . . the same mental process traditionally performed by physicians and caregivers.” (R.35, Opening Br. at 7).

Second, the Court finds unconvincing CareFusion’s suggestion that the tangible components of the ‘560 Patent are “purely functional and generic” and therefore insufficient to constitute an inventive concept under Supreme Court precedent. *See, e.g., Alice*, 134 S.Ct. at 2360 (rejecting petitioner’s argument that the use of “specific hardware,” including a “data processing system” with a “communications controller” and a “data storage unit,” saved its claims from patent ineligibility). Even assuming that the components of a programmable infusion pump are well-known in the art, such state does not transform them into “generic” hardware ineligible for patent protection under Section 101. The claimed method incorporates hardware. Together, they function to operate an apparatus capable of making real-time adjustments to medication dosage. Construing—as the Court must—the ‘560 Patent in the light most favorable to Baxter, the Court finds that the asserted hardware is not “purely functional and generic.” *See Centers*, 398 F.3d at 933; *Content Extraction*, 776 F.3d at 1349.

CareFusion’s reliance on *Vehicle Intelligence*, therefore, is also misplaced. The invalidated patent at issue in *Vehicle Intelligence* covered an “expert system to screen equipment operators for impairments[.]” 78 F. Supp. 3d at 886. The patent was “not limited to any particular type of impairment, [did] not require any specific method of impairment testing, and [did] not specify how the ‘expert system’ would be programmed to perform the ‘screening.’” *Id.* at 891. The *Vehicle Intelligence* court therefore held, in relevant part, that the “[g]eneric

computer automation of the conventional ‘screening’ step does not amount to an inventive concept” insofar as the claims “do not require that the expert system be programmed to perform the function in any specific way.” *Id.* at 890-91. Here, by contrast, the ‘560 Patent specification details its operation and includes a “litany description of the infusion pump elements,” including its electronics, operating system, data storage, and pain relief modification program. (R.37, Response Br. at 10). The Court finds that the claimed programmable pump goes beyond the generic computer applications found insufficient to constitute an inventive concept in *Vehicle Intelligence* and other recent Federal Circuit opinions. *See, e.g., Versata*, 793 F.3d at 1334 (noting that the addition of a “general purpose computer or the Internet” does not save an otherwise abstract concept from ineligibility); *Mortgage Grader*, 811 F.3d at 1324-25 (noting that “generic computer components” such as an “interface, network, and database . . . do not satisfy the inventive concept requirement”).

Lastly, the Court looks to the machine-or-transformation test for guidance. Here, the claims are tied to a particular machine or apparatus – specifically, a medical infusion pump which automatically adjusts a patient’s pain medication dosage based on real-time data inputs. The use of physical components to make this automatic adjustment is essential to the operation of the claimed method. *See SiRF Tech*, 601 F.3d at 1333. This essential link satisfies the machine prong of the machine-or-transformation test and further confirms the ‘560 Patent’s eligibility for statutory protection under Section 101.

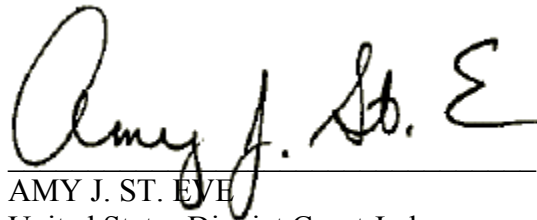
Based on the foregoing analysis, the Court concludes that the ‘560 Patent is patent eligible.

**CONCLUSION**

For the foregoing reasons, the Court denies CareFusion's motion to dismiss Counts I and III of the Amended Complaint. (R.34).

**Dated:** May 13, 2016

ENTERED



AMY J. ST. EVE  
United States District Court Judge