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Case Number: T 0414/09 - 3.5.05

Application Number: 02794323.2

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Title of invention:
System and method for operating medical devices

Applicant:
Baxter International Inc.

Headword:
System and method for operating medical devices/BAXTER

Relevant legal provisions:
EPC Art. 52(1)

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step - all requests (no)"

Decisions cited:
T 0305/87

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0414/09 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 20 December 2012

Appellant: (Applicant)
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 3 November 2008 refusing European patent application No. 02794323.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair: A. Ritzka
Members: P. Corcoran
G. Weiss

Summary of Facts and Submissions

I. The present appeal is against the decision of the examining division to refuse the European patent application no. 02 794 323.2 published as international application WO 2003/063932. The decision was announced during oral proceedings on 16 October 2008 with written reasons being dispatched on 3 November 2008.

II. The decision under appeal was based on a main request comprising a set of claims 1 to 11 filed with the letter of 27 May 2005 and five auxiliary requests filed with the letter of 16 September 2008.

III. The examining division found that claim 1 of the main request lacked an inventive step over the following document:

D1: US 5 781 442.

A substantially similar finding was made in respect of the auxiliary requests.

With respect to the third auxiliary request, the decision under appeal also made reference to the following document which was said to exemplify the use of personal digital assistants designed to provide drug administration verification:

D3: WO 01/88828 A.

IV. Notice of appeal was received at the EPO on 27 November 2008 with the appeal fee being paid on 26 November 2008. The written statement setting out the grounds of appeal was received at the EPO on 23 January 2009. With the written statement setting out the grounds of appeal the

appellant filed a main request and five auxiliary requests corresponding to the requests on which the impugned decision was based. A precautionary request for oral proceedings was made in the event that the board was not minded to allow the main request.

V. In the written statement setting out the grounds of appeal, the appellant submitted that the disclosure of D1 was not prejudicial to the claimed invention and, in particular, made submissions to the effect that there was a consistent teaching in all embodiments of D1 that the medical device was connected to the network via a computer and that the operating parameters for the medical device always had to pass from the second computer to the first computer before being passed on to the clinical device itself.

VI. In a communication accompanying a summons to oral proceedings to be held on 20 December 2012, the board gave its preliminary opinion that the appellant's requests were not allowable.

VII. In said communication, the board noted that it had not been convinced by the appellant's submissions to the effect that D1 was not prejudicial to the claimed invention. In the context of its discussion of D1, a US patent specification, the board made reference to the corresponding international patent application:

D1a: WO 96/36923 A.

The communication also referred *inter alia* to D3, in particular Fig. 4 thereof and the accompanying text on p.30 l.1 *et seq.*, which in the board's opinion disclosed the direct transmission of operating

parameters from a central computer system to a medical device.

VIII. With a letter of reply dated 19 November 2012, the appellant replaced the requests on file with a new main request and eight auxiliary requests.

IX. The appellant has requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or one of the auxiliary requests, all requests filed with the letter dated 19 November 2012.

X. Claim 1 of the main request reads as follows:

"A system for operating a medical device, the system comprising:

a computer remote from a treatment location, the computer remote from the treatment location designed to accept a first patient identifier and an operating parameter for the medical device;

a computer in proximity to the treatment location, the computer in proximity to the treatment location designed to read a second patient identifier attached to a patient, and to read a medication identifier attached to a medication source, the medication identifier including a third patient identifier;

where the computer in proximity to the treatment location is designed to send the medication identifier to the computer remote from the treatment location if the second patient identifier and the third patient identifier are equivalent;

where the computer remote from the treatment location is designed to send the operating parameter

to the medical device if the third patient identifier is equivalent to the first patient identifier,

where the operating parameter does not pass through the computer in proximity to the treatment location when being sent to the medical device."

XI. Claim 1 of the first auxiliary request reads as follows:

"A system for operating a medical device, the system comprising:

a computer remote from a treatment location, the computer remote from the treatment location designed to accept a first patient identifier and an operating parameter for the medical device;

a computer in proximity to the treatment location, the computer in proximity to the treatment location designed to read a second patient identifier attached to a patient and to read a medication identifier attached to a medication source, the medication identifier including a third patient identifier;

where the computer in proximity to the treatment location is designed to send the medication identifier to the computer remote from the treatment location if the second patient identifier and the third patient identifier are equivalent;

where the computer remote from the treatment location is designed to search for the latest operating parameter; and

where the computer remote from the treatment location is designed to send the first operating parameter to the medical device if the third patient identifier is equivalent to the first patient identifier and if the first operating parameter is equivalent to the latest operating parameter,

where the operating parameter does not pass through the computer in proximity to the treatment location when being sent to the medical device."

XII. Claim 1 of the second auxiliary request reads as follows:

"A system for operating a medical device, the system comprising:

a computer remote from a treatment location, the computer remote from the treatment location designed to accept a first patient identifier and an operating parameter for the medical device relating to a patient;

a computer in proximity to the treatment location, the computer in proximity to the treatment location designed to read a second patient identifier attached to a patient, and to read a medication identifier attached to a medication source, the medication identifier including a third patient identifier;

where the computer in proximity to the treatment location is designed to send the medication identifier to the computer remote from the treatment location if the second patient identifier and the third patient identifier are equivalent;

where the computer remote from a treatment location is designed to search for the most recent operating parameter relating to the patient accepted by the computer remote from a treatment location; and

where the computer remote from a treatment location is designed to send the first operating parameter to the medical device if the third patient identifier is equivalent to the first patient identifier and if the first operating parameter is equivalent to the latest operating parameter,

where the operating parameter does not pass through the computer in proximity to the treatment location when being sent to the medical device."

XIII. Claim 1 of each of the third, fourth and fifth auxiliary requests is based respectively on the corresponding claim of the main, first and second auxiliary requests and differs in that it specifies that the second patient identifier is read "from a barcode attached to a patient" and that the medication identifier is read "from a barcode on a medication container" (claim 1 of the third auxiliary request) or "from a barcode on a medication label" (claim 1 of the fourth and fifth auxiliary requests).

XIV. Claim 1 of each of the sixth, seventh and eighth auxiliary requests is based respectively on the corresponding claim of the main, first auxiliary and second auxiliary requests and differs in that the computer remote from the treatment location is specified as a "central computer" whereas the computer in proximity to the treatment location is specified as a "personal digital assistant".

XV. Oral proceedings were held as scheduled on 20 December 2012.

XVI. Insofar as they are relevant to the present decision, the written and oral submissions made on behalf of the appellant during the present appeal proceedings, may be summarised as follows:

(i) With respect to the documents D1 and D1a, it was submitted that neither document contained a

disclosure of the direct transmission of an operating parameter from a central computer to a medical device without said operating parameter passing through the computer in proximity to the treatment location as explicitly specified in the independent claim of the present main request. The appellant further submitted that neither D1 nor D1a would have led the skilled person to contemplate such a direct transmission of an operating parameter to a medical device.

(ii) Referring to D1a in particular, the appellant noted that this application only contained a single claim which defined the disclosed invention. According to said claim, an essential feature of the system was that the first computer was operatively connected to the clinical device. The claim further required the second computer to send operating parameters to the first computer in order to configure the medical device.

(iii) The appellant referred *inter alia* to the Board of Appeal decision T 0305/87 and argued to the effect that the findings of the examining division in the impugned decision relied on an impermissible combination of features from separate embodiments of D1. In particular, the appellant submitted that the embodiment of D1 illustrated in Fig. 15 did not include essential features of the invention, in particular the computer in a central location remote from the treatment location.

(iv) With respect to D3, the appellant submitted that the fact that said document disclosed that

messages might be sent wirelessly was not particularly relevant given the overall nature of D3 which was concerned with a system for verifying that medication orders had been received and carried out. This was in contrast to the claimed invention which aimed to program medical devices correctly before any medical treatment began in order to minimise the risk of the wrong treatment being given to the wrong patient.

(v) With respect to the first auxiliary request, the appellant submitted that claim 1 of said request related to an embodiment which addressed the problem of minimising potential errors in treatment arising from the use of out-of-date prescriptions. The claimed system was adapted to ensure that the most up-to-date prescription treatment was taken into account when delivering medication to a patient thereby preventing obsolete or out-of-date operating parameters from being sent to the medical device which might otherwise result in potentially harmful therapy being given to a patient.

(vi) With respect to the second auxiliary request, the appellant submitted that claim 1 of said request essentially related to the same embodiment as claim 1 of the preceding request and merely specified more clearly the patient-specific nature of the operating parameter for the medical device and that the system took account of "the most recent operating parameter relating to the patient accepted by the computer remote from a treatment location". The term "latest operating parameter"

recited in the penultimate claim feature was intended to refer to the antecedent "most recent operating parameter".

(vii) With respect to the third, fourth and fifth auxiliary requests, during oral proceedings the appellant's representative did not dispute the view expressed by the board to the effect that, at the claimed priority, the use of bar codes for encoding identifiers and, likewise, the provision of terminals having means for reading such bar codes were known *per se* in the relevant technical field of computerised patient care systems.

(viii) With respect to the sixth, seventh and eighth auxiliary requests, during oral proceedings the appellant's representative did not dispute the view expressed by the board to the effect that the use of portable computing devices such as personal digital assistants was known *per se* in the relevant technical field of computerised patient care systems.

XVII. At the end of the oral proceedings, the chair announced the board's decision.

Reasons for the Decision

1. The appeal is admissible. However, it is not allowable because the appellant's requests do not comply with the requirements of the EPC for the reasons which follow.

Main request

2. *Preliminary observations re D1*

2.1 D1 discloses a system ("an integrated hospital-wide information and care management system", D1: col.4 l.23-27) for operating a medical device ("various clinical devices such as infusion pumps", D1: col.2 l.38-46; col.6 l.14-29).

2.2 D1 discloses the following particular embodiments of the care management system:

(a) A first embodiment depicted in Fig. 1 and described in col.12 l.22 - col.14 l.32.

(b) A second embodiment depicted in Fig. 13 and described in col.14 l.43-61.

(c) A third embodiment depicted in Fig. 14 and described in col.14 l.62 - col.15 l.10.

(d) A fourth embodiment, depicted in Fig. 15 and described in col.15 l.11-32.

2.3 The board considers that, as set forth in the decision under appeal, the subject-matter of claim 16 of D1 may be taken as the closest prior art to the invention according to claim 1 of the main request.

2.4 Claim 16 of D1 discloses the following features of claim 1 of the main request:

(i) *"a computer remote from a treatment location, the computer remote from the treatment location designed to accept a first patient identifier and an operating parameter for the medical device"*;

The "first processor" of claim 16 of D1 evidently corresponds to the "pharmacy information system 20" (cf. D1: col.4 l.27-31; col.5 l.13-32) which, in the board's judgement, provides functionality substantially identical to that specified above with respect to "the computer remote from the treatment location" in claim 1 of the main request.

(ii) "a computer in proximity to the treatment location, the computer in proximity to the treatment location designed to read a second patient identifier attached to a patient and to read a medication identifier attached to a medication source, the medication identifier including a third patient identifier;

where the computer in proximity to the treatment location is designed to send the medication identifier to the computer remote from the treatment location";

The "second processor" of claim 16 of D1 evidently corresponds to the "bedside CPU" (cf. D1 col.5 l.61 - col.6 l.25; col.12 l.64 - col.13 l.45) which, in the board's judgement, provides functionality substantially identical to that specified above in claim 1 of the main request

with respect to "the computer in proximity to the treatment location".

(iii) *"where the computer remote from the treatment location is designed to send the operating parameter to the medical device if the third patient identifier is equivalent to the first patient identifier"*;
In the board's judgement, it is implicit in the specification of claim 16 of D1 (*viz.* "comparing the communicated patient identification data and medication identification data to patient and medication identification data stored in the first processor; communicating the clinical device operating parameters ... to the clinical device ... if the comparison of the patient identification data and medication identification data by the first processor satisfies a predetermined condition"), that the operating parameter for the medial device is sent to the medical device only if the patient identifier provided by the computer in proximity to the treatment location is consistent with the patient identifier which is stored at the computer remote from the treatment location.

3. *Inventive step*

3.1 The subject-matter of claim 16 of D1 thus differs from the subject matter of claim 1 of the main request in the following respects:

(i) According to claim 1 of the main request, the sending of the medication identifier from the

computer in proximity to the treatment location to the computer remote from the treatment location is contingent on the second patient identifier and the third patient identifier being equivalent. Claim 16 of D1 does not contain a specification to this effect.

(ii) According to claim 1 of the main request, the operating parameter does not pass through the computer in proximity to the treatment location when being sent to the medical device. Claim 16 of D1 does not contain a specification to this effect.

3.2 As to the difference, identified under 3.1 (i) above, the technical effect achieved by this feature is to ensure that a request for an operating parameter is only sent to the remote computer if the second patient identifier attached to the patient and the third patient identifier attached to the medication source are equivalent. This feature effectively specifies a patient identifier verification check at the computer in proximity to the treatment location prior to sending a request to the remote computer for further processing. The objective technical problem which this feature addresses may be formulated as how to ensure that only requests which are *prima facie* valid (i.e. requests which do not contain logical inconsistencies or mismatches in the relevant input data) are sent to the remote computer for further processing.

3.3 D1 discloses that prior to medication delivery a patient identifier attached to the patient ("barcoded information printed on the patient bracelet") and a patient identifier attached to the medication source

("barcoded information on the label ... affixed to the medication container") should be compared in order to detect any discrepancy (cf. D1: col.7 l.44-59; col.13 l.24-35).

3.4 According to D1, the comparison of the patient identifiers is performed by a "medication administration module" which is responsible *inter alia* for verifying that the right medication is given to the right patient (D1: col.13 l.24 et seq.). Although the precise location of the medication administration module does not appear to be specified, D1 indicates that various modules of the patient management system may reside in each of the computers in the network (D1: col.4 l.34 et seq.).

3.5 The board takes the view that, under the given circumstances, the skilled person would not require the exercise of inventive skill to adapt the subject-matter of claim 16 of D1 such that the patient identifier verification check was performed as close as possible to the point of data entry (i.e. at the computer in proximity to the treatment location). Likewise, the skilled person would not require the exercise of inventive skill to recognise that the failure of the verification check, i.e. the detection of a discrepancy between the patient identifiers, would render it inappropriate to send the medication identifier to the remote computer for further processing. In the given context, the board judges that the required adaptations are straightforward design options falling within the routine competence of the skilled person.

3.6 Having regard to the foregoing, the board judges that the distinguishing feature identified under 3.1(i) above represents an obvious solution to the partial technical problem formulated in 3.2 above and, consequently, does not contribute to an inventive step.

3.7 As to the difference, identified under 3.1(ii) above, this feature relates to the manner in which the operating parameter is transferred to the medical device. According to the application (cf. published application: p.10 l.31 – p.11 l.4), the technical effect of sending the operating parameter directly to the medical device is to eliminate a potential source of errors in administering medication to a patient by bypassing computers at the remote location. The objective technical problem addressed by this feature may thus be formulated as how to further automate the configuration of the medical device or, alternatively, how to further reduce the amount of human intervention required to configure the medical device.

3.8 The appellant has submitted that the specification in claim 16 of D1 to the effect that the medical device ("clinical device" in the claim terminology) is "operably connected to the second processor" is to be interpreted as requiring that the operating parameter must inevitably pass through the second processor.

The board accepts that such an interpretation would be consistent with the first embodiment of D1 (cf. 2.2 above) according to which the operating parameters for the medical device are sent to the beside CPU and then downloaded to the medical device (cf. D1: col.13 l.46-55).

However, the board takes the view that the claim wording specifies in more general terms that the operating parameters are communicated to the medical device ("communicating the clinical device operating parameters associated with the patient identification data and medication identification data stored in the first processor to the clinical device operably connected to the second processor to program the clinical device to operate in accordance with the clinical device operating parameters") without defining the precise transmission route.

The board does not concur with the appellant that the specification in claim 16 of D1 that the medical device is "operably connected to the second processor" necessitates that the operating parameter must inevitably pass through the second processor but rather understands this specification to indicate that the second processor is coupled to and can exchange data and control signals with the medical device to the extent required. Such an arrangement does not, in the board's judgement, exclude the direct transmission of operating parameters from a remote computer to the medical device.

3.9 In this regard, the board judges that the interpretation of claim 16 of D1 should not be limited on the basis of the first embodiment of the D1. D1 discloses further embodiments (cf. 2.2 above), in particular the fourth embodiment according to which the medical devices are connected directly to the network via an RF transmitter. The caption in Fig. 15 of D1a, an international application corresponding to D1,

confirms this interpretation of the fourth embodiment of D1: *"Patient Beside. All devices are connected to an RF transmitter that transmits information to the RF network"*.

3.10 The fourth embodiment of D1 is judged to disclose or at least suggest an arrangement which would permit an operating parameter be sent directly to a medical device without passing through the computer in proximity to the treatment location. The board considers that the skilled person would not require the exercise of inventive skill in the context of such an arrangement to contemplate sending the operating parameter directly to the medical device.

3.11 D1 indicates that the automatic configuration of a medical device such as an infusion pump is desirable because it eliminates the need for manual entry of parameters thereby eliminating a potential source of error (cf. D1: col.13 l.55-59). The board considers that the skilled person would recognise without the exercise of inventive skill the desirability of further automating the configuration of the medical device by eliminating the intermediate step of downloading operating parameters to the medical device from the computer in proximity to the treatment location. In the context of seeking to achieve such a further automation, the board judges that it would be obvious for the skilled person to adapt the system to send operating parameters directly from the remote computer to the medical device.

3.12 It is further noted in this regard that the direct transmission of operating parameters to a medical

device ("a patient specific asset") from a remote central computer system ("a care facility's information systems") is disclosed in D3 (cf. D3: Fig. 4; p.30 l.1 *et seq*.). In the board's judgement, the disclosure of D3 in this regard provides a direct hint to the skilled person to send an operating parameter directly to the medical device without requiring it to pass it through a computer in proximity to the treatment location.

3.13 The board therefore takes the view that, having regard to the fourth embodiment of D1, the sending of an operating parameter directly to the medical device as recited in claim 1 of the main request is a design option which does not require the exercise of inventive skill on the part of the skilled person confronted with the partial technical problem formulated in 3.7 above. This design option is likewise rendered obvious having regard to the disclosure of D3 as discussed in 3.12 above.

3.14 In view of the foregoing, the board judges that distinguishing feature identified under 3.1(ii) above does not contribute to an inventive step.

4. *Observations re appellant's submissions*

4.1 The appellant made submissions to the effect that D1 does not contain a disclosure of the direct transmission of an operating parameter from a central computer to a medical device (cf. Facts and Submissions, item XVI(i) above). It is noted in this regard that although the absence of an explicit disclosure with respect to the aforementioned feature may contribute to establishing the novelty of the claimed invention over

D1, it does not necessarily follow that said feature involves an inventive step.

4.2 The appellant further argued to the effect that D1 would not have led the skilled person to contemplate the direct transmission of an operating parameter to a medical device because its teaching was effectively such as to always require the operating parameter to pass through a computer in proximity to the treatment location before being transferred to the medical device. The board notes that, notwithstanding the fact that the direct transmission of an operating parameter to a medical device is not disclosed in D1, this claim feature is judged to be a matter of design choice which the skilled person would arrive at without the exercise of inventive skill (cf. 3.10-3.13 above).

4.3 With respect to the appellant's submissions concerning D1a (cf. Facts and Submissions, item XVI(ii) above), the board notes that its inventive step assessment of claim 1 of the main request is based on D1 not D1a (cf. 3. above). The latter document is only referred to incidentally in relation to the interpretation of Fig. 15 of D1 based on the caption of the corresponding Fig. 15 of D1a which confirms that in this embodiment all devices are connected to an RF transmitter that transmits information to the RF network (cf. 3.9 above).

Under the given circumstances, the appellant's observations concerning are D1a not considered to be relevant for the assessment of the inventive step of claim 1 of the main request starting from claim 16 of D1.

4.4 With respect to the appellant's citation of decision T 0305/87 and submissions to the effect that the embodiment of D1 illustrated in Fig. 15 does not include essential features of the invention (cf. Facts and Submissions, item XVI(iii) above) the following is noted.

According to decision T 0305/87, it is not permissible to use features pertaining to separate embodiments in order to create artificially a particular embodiment which would destroy novelty, unless the document itself suggests such a combination of features. As the objection against claim 1 of the main request concerns the matter of inventive step rather than novelty, the decision T 0305/87 is not considered to have any immediate relevance to the present case.

Concerning the assertion that the embodiment of Fig. 15 of D1 fails to disclose essential features of the claimed invention, in particular the computer remote from the treatment location, it is noted that Fig. 15 depicts a particular embodiment of the "care management system 30" (cf. D1: col.15 l.11-12). D1 explicitly states elsewhere (cf. D1: col.4 l.41-63) that the care management system is "interfaced and connected to other hospital information systems, which include a "pharmacy information system 20", to form an integrated information and care system". Under these circumstances, the skilled person would understand from the overall disclosure of D1 that the embodiment of the "care management system 30" depicted in Fig. 15 of D1 is intended to be interfaced and connected to other hospital information systems including the "pharmacy

information system 20" in an arrangement substantially similar to that depicted in Figs. 1 and 2.

4.5 With respect to D3, the appellant submitted that the fact that said document disclosed that messages might be sent wirelessly was not particularly relevant given the overall nature of D3 which was concerned with a system for verifying that medication orders had been received and carried out (cf. Facts and Submissions, item XVI(iv) above).

In the board's judgement, D3 which discloses a system for communicating and validating patient information including medication delivery information in a care giving facility relates to the same general technical field as the present application. Moreover, D3 clearly discloses that operating parameters can be transmitted directly to a medical device from a remote computer (cf. 3.12 above). For this reason, the board does not concur with the appellant's submissions to the effect that the disclosure of D3 is not relevant to the subject-matter of the present application.

4.6 In view of the foregoing, the appellant's submissions in defence of the main request failed to convince the board.

5. The board concludes that claim 1 of the main request does not involve an inventive step. Consequently, the main request is not allowable.

First and second auxiliary requests

6. *Preliminary observations*

6.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request in that it additionally specifies that the computer remote from the treatment location is designed to search for "the latest operating parameter" and that the sending of the operating parameter to the medical device is also contingent on the "first operating parameter" being equivalent to the "latest operating parameter".

6.2 The basis for these additional features is the disclosure relating to the third embodiment of Figs.5A and 5B (cf. application: p.13 l.9 et seq., in particular p.14 l.14-20 and p.15 l.3-8).

6.3 According to the appellant (cf. Facts and Submissions, item XVI(v) above), claim 1 of the first auxiliary request is to be interpreted as being directed towards a system which is adapted to ensure that the most up-to-date prescription treatment is taken into account when delivering medication to a patient and the invention according to said claim thus addresses the problem of minimising potential errors in treatment arising from the use of out-of-date prescriptions.

7. *Inventive step*

7.1 Claim 1 of the first auxiliary request does not specify how the "latest operating parameter" is entered into the system or where it is stored. Neither does it specify any technical details as to how the computer

remote from the treatment location is designed to search for the "latest operating parameter". The relevant passages of the description do not provide any specific technical details in this regard. In view of the foregoing, the board judges that the additional feature of claim 1 relating to the search for the "latest operating parameter" is to be interpreted as implying the conventional use of known database technology to retrieve a value of the operating parameter having the most recent timestamp.

7.2 The claim further includes a specification to the effect that the sending of the operating parameter to the medical device is contingent on the "first operating parameter" and the "latest operating parameter" being equivalent. According to the application (cf. application: p.9 l.18-21), an operating parameter is some kind of medication delivery information which may be, for example, a flow rate, a quantity of medication, a dosing unit, a dosing duration, a dosing volume, a drug name, a dose unit or a monitoring limit. Based on the appellant's submissions (cf. 6.3 above), the board interprets the aforementioned claim specification as defining an additional verification check according to which the use of out-of-date medication delivery information is avoided.

7.3 According to D1, the disclosed patient management system "verifies that the right medication is dispensed to the right patient in the right dosage via the right delivery route at the right time by maintaining a database of information relating to the patient, the patient's condition, and the course of treatment

prescribed to treat the patient's illness (cf. D1: col.2 l.46-51, emphasis added). D1 further discloses the importance of providing caregivers with updated patient information (cf. D1: col.1 l.20-34) and likewise refers to the desire for accurate tracking of all treatment given to a patient (cf. D1: col.3 l.1-5).

7.4 Having regard to the overall aim of D1 to verify that the right medication is being dispensed to the right patient in the right dosage via the right delivery route at the right time, the board judges that in the given context the skilled person would not require the exercise of inventive skill to provide a verification check in accordance with the additional features of claim 1 of the first auxiliary request, i.e. a verification check which ensures that an operating parameter for the medication delivery has not been superseded by more recently entered data.

7.5 On this basis, the board concludes that the additional features of claim 1 of the first auxiliary request fail to overcome the inventive step objection against claim 1 of the main request.

8. *Second auxiliary request*

8.1 In the board's judgement, claim 1 of the second auxiliary request seeks protection for substantially the same subject-matter as claim 1 of the first auxiliary request and differs only in respect of the wording. In particular, said claims uses the term "the most recent operating parameter" rather than "the latest operating parameter" as in the case of claim 1 of the preceding request.

8.2 The board judges that there has been no substantive change to the matter for which protection is sought vis-à-vis claim 1 of the first auxiliary request, and therefore the observations set forth under 7. above also apply *mutatis mutandis* to claim 1 of the second auxiliary request.

9. In view of the foregoing, the first and second auxiliary requests are not allowable.

Third, fourth and fifth auxiliary requests

10. *Third auxiliary request*

10.1 Claim 1 of the third auxiliary request is based on claim 1 of the main request and differs only in that it additionally specifies that the second patient identifier is read "from a barcode attached to a patient" and that the medication identifier is read "from a barcode on a medication container".

10.2 In the board's judgement, the use of barcodes for encoding identifiers and, likewise, the provision of terminals having means for reading such barcodes were known and conventional technical measures for automating data entry and their use in the relevant technical field of computerised patient care systems was likewise known.

10.3 In this regard, it is noted that D1 discloses a barcode on a patient identification device such as a patient identification bracelet and, likewise, a barcode on a

label identifying the medication to be dispensed (cf. D1: Figs. 4 to 6; col.7 l.20 - col.8 l.3).

10.4 In view of the foregoing, the board judges that the aforementioned additional specifications of claim 1 of the third auxiliary request relating to the reading of patient and medication identifiers from barcodes relate to known and conventional technical measures for automating data entry whose deployment in the given context does not involve an inventive step.

11. *Fourth and fifth auxiliary requests*

11.1 Claim 1 of the fourth auxiliary request is based on claim 1 of the first auxiliary request and differs only in that it specifies that the second patient identifier is read "from a barcode attached to a patient" and that the medication identifier is read "from a barcode on a medication label". Claim 1 of the fifth auxiliary differs in an identical manner from claim 1 of the second auxiliary request.

11.2 The preceding observations relating to claim 1 of the third auxiliary request (cf. 10. above) apply *mutatis mutandis* to claim 1 of the fourth auxiliary request and likewise to claim 1 of the fifth auxiliary request.

12. In view of the foregoing, the third, fourth and fifth auxiliary requests are not allowable.

Sixth, seventh and eighth auxiliary requests

13. *Inventive step*

13.1 Claim 1 of the sixth auxiliary request is based on claim 1 of the main request and differs only in that the computer remote from the treatment location is specified as a "central computer" whereas the computer in proximity to the treatment location is specified as a "personal digital assistant". Claim 1 of the seventh auxiliary request differs in the same manner from claim 1 of the first auxiliary request as does claim 1 of the eighth auxiliary request from claim 1 of the second auxiliary request.

13.2 The aforementioned differences relating to the definitions of the computers remote from and in proximity to the treatment location do not involve an inventive step for the reasons which follow.

13.3 The specification of the computer remote from the treatment location as a "central computer" is judged by the board to be an amendment of a purely terminological nature which does not imply any substantive difference with respect to the technical characteristics of this computer.

13.4 Concerning the specification of the computer in proximity to the treatment location as a "personal digital assistant", it is noted that the application as filed presents the provision of the computer in proximity to the treatment location in the form of a personal digital assistant as a design choice (cf. application: p.9 l.22-24; p.12 l.6-8; p.15 l.21-23). In

no embodiment of the invention is it stated as an essential requirement that this computer be a personal digital assistant. In the given context, a personal digital assistant is merely a known type of portable terminal. No non-obvious technical effects or technical considerations resulting from the use of this particular type of portable terminal are disclosed or derivable from the application as filed.

13.5 The fourth embodiment of D1 discloses the use of portable computers having RF transmitters/receivers (cf. D1: col.15 l.21-25). Whereas D1 does not specifically disclose the use of personal digital assistants, the board judges that the use of a personal digital assistant in the context of the system of D1 would represent a straightforward and obvious design choice, in particular when account is taken of the fact that, at the claimed priority date, the use of personal digital assistants as portable terminals was known *per se* in the field of computerised patient care systems as evidenced by D3 (cf. D3: p.1 l.23-28; p.12 l.23-26).

13.6 The board thus concludes that the specification of the computer in proximity to the treatment location as a "personal digital assistant" represents an obvious design choice which does not involve an inventive step.

14. In view of the foregoing, the sixth, seventh and eighth auxiliary requests are not allowable.

Conclusions

15. In the absence of an allowable request the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz A. Ritzka