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**Datasheet for the decision
of 1 March 2016**

Case Number: T 0690/11 - 3.2.02

Application Number: 03736716.6

Publication Number: 1509261

IPC: A61M1/16, G06F19/00, A61M1/36

Language of the proceedings: EN

Title of invention:
DIALYSIS SYSTEM COMPRISING A DISPLAY DEVICE, A WEB BROWSER AND
A WEB SERVER

Patent Proprietors:
Baxter International Inc.
Baxter Healthcare SA

Opponent:
Fresenius Medical Care Deutschland GmbH

Headword:

Relevant legal provisions:
EPC Art. 52(2)(d), 56, 100(a)

Keyword:

Patentable invention - technical character of some features of
the invention - (yes)
Inventive step - (yes)

Decisions cited:

T 0553/02, T 0930/05, T 0528/07, T 0336/14, G 0001/95,
G 0007/95

Catchword:



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Case Number: T 0690/11 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 1 March 2016

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 4 March 2011 rejecting the opposition filed against European patent No. 1509261 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman E. Dufrasne
Members: D. Ceccarelli
 M. Stern

Summary of Facts and Submissions

- I. The opponent has appealed the Opposition Division's decision to reject the opposition. The decision was dispatched on 4 March 2011.

- II. The patent was opposed on the ground of lack of inventive step only. The following document was considered the closest prior art:

D1: EP-A-1 195 708.

- III. The notice of appeal was received on 23 March 2011. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 4 July 2011.

- IV. The respondent replied to the statement of grounds of appeal by letter dated 10 January 2012.

- V. The Board summoned the parties to oral proceedings and set out its provisional opinion in a communication dated 21 December 2015.

- VI. Both the appellant and the respondent filed further submissions by letters dated respectively 1 February 2016 and 19 February 2016.

- VII. Oral proceedings took place on 1 March 2016.

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the appeal be dismissed or, in the alternative, that the decision under appeal be set aside and that the patent be maintained on the

basis of one of the first to eighth auxiliary requests filed with letter dated 10 January 2012.

VIII. In addition to D1, the following documents are referred to in the present decision:

- D2: WO-A96/40322;
- D3: EP-A-904 788;
- D6: WO-A-94/11093;
- D7: DE-A-197 42 633;
- D10: "Operators Manual, Fresenius USA/Delmed 90/2 Peritoneal Dialysis System", Fresenius USA Inc., 470002 REV. A, 2 June 1991;
- D10': "Operator's Instructions, Fresenius 90/2 Peritoneal Therapy Cyclor", Fresenius USA, P/N 470016 REV. B, 1991;
- D11: "Dialyse F!bel", Schönweiss, 2. Auflage, ABAKISS, 1996;
- D12: "AKUT-THERAPIESYSTEME - multiFiltrate - Multifunktional für Nierenersatz- und Plasmatherapie", Fresenius Medical Care.

IX. Claim 1 of the patent as granted reads as follows:

"A dialysis system (10,100) comprising:

a display device (40); and
a web browser (602) and web server(604) embedded in the dialysis system, **characterized in that** the browser and the server operate with the display device to:

display a plurality of dialysis therapy set-up procedure screens that require an operator input, and
display a plurality of dialysis treatment

screens that graphically illustrate the progress of at least one step in the dialysis therapy in at least substantially real time."

Claims 2 to 13 are dependent claims.

X. The appellant's arguments may be summarised as follows:

(a) The subject-matter of claim 1 of the patent as granted consisted of an aggregation of two groups of features without any synergistic effect between them.

The first group was constituted by the features of the dialysis system comprising a display device, and a web browser and web server embedded in the dialysis system, wherein the browser and the server operate with the display device. This group related to an arrangement for presenting certain information on a display. It concerned "how" the information was to be displayed.

The second group was constituted by the features of displaying a plurality of dialysis therapy set-up procedure screens and of a plurality of dialysis treatment screens. This group concerned "what" information was to be displayed.

The features of the second group merely related to computer-implemented presentations of information. In view of decisions T 930/05, T 528/07 and T 553/02, the latter one specifically concerned with the non-technicality of operating instructions, they did not possess any technical character. More particularly, the claimed features

of the second group simply represented a visualised instruction manual of the dialysis system, directed only to the operator. The input required in the dialysis therapy set-up procedure screens could be equated to the possibility of turning the pages of the instruction manual. There was no need of the actual input via respective input means. As a consequence, there was no relation with the operating state of the system. Decision T 336/14 was more closely related to the subject-matter of the patent in suit. The deciding board, in particular in points 1.2.3 and 1.2.5 of the Reasons, concluded that the mere presentation on a display of steps to be performed by a user of a blood treatment device, which were in no relation with the internal state of the system but simply concerned the particular kind of information displayed, did not possess a technical character. This conclusion had to apply to the claimed features of the second group too. In view of the jurisprudence of the boards of appeal, non-technical features should be disregarded for the assessment of novelty and inventive step.

- (b) D1 was novelty-destroying for the subject-matter of claim 1. Although lack of novelty had not been invoked as a ground for opposition in the proceedings at first instance, the objection was admissible in view of decisions G 1/95 and G 7/95, since it was based on the closest prior art employed in the arguments concerning inventive step.

D1 disclosed, in particular in paragraphs [0005] and [0013] and in the figure, a dialysis system (10) comprising a display device (15), and a web

browser (14) and web server (13) embedded in the dialysis system, wherein the browser and the server operate with the display device to display information. User interface 15 could be a touch screen according to column 3, lines 53 to 54, and the web browser and the web server communicated with each other and with the display device according to paragraph [0009] and column 3, lines 44 to 48. D1 also disclosed the monitoring of the dialysis treatment in column 1, lines 15 to 21 and column 3, lines 35 to 40.

The purpose of the interaction between the web browser, the web server and the display device for displaying the specific plurality of dialysis therapy set-up procedure screens and a plurality of dialysis treatment screens as claimed should be disregarded as being non-technical.

- (c) In any case, the subject-matter of claim 1 did not involve an inventive step over D1 alone, or in combination with D2, D3, D6, D7, D10 or D10'.

Since D1, in particular in column 5, lines 12 to 16, taught displaying information available on the Internet, it would be obvious, if not implicit, for the skilled person also to display information relating to dialysis treatment. It was also obvious to display the progress of at least one step of the dialysis treatment in real time, as usually done in the field of computers by showing progress bars.

One could consider that the problem solved by displaying a plurality of dialysis therapy set-up procedure screens and a plurality of dialysis treatment screens as claimed was to provide a more

user-friendly and safer dialysis system.

D2 described in detail an apheresis system. However, the skilled person would recognise that its teaching extended to extracorporeal blood treatment systems in general and, in particular, to dialysis systems. That was derivable for example from D11 and D12 and could be confirmed by the hearing of a witness. D2 addressed the problem defined above, as discussed on page 1, lines 23 to 26. Furthermore, it disclosed, in particular in figures 26 to 38 and the related description, the display of a plurality of therapy set-up procedure screens that require an operator input and, in particular in figures 39 to 41 and the related description, the display of a plurality of dialysis treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy in real time. Since in the dialysis system of D1 the web server and the web browser operated with the display to show data concerning the dialysis therapy, the skilled person would apply the teaching of D2 to the device of D1 and use the web server and the web browser also to make the display show the claimed screens, thereby arriving at the subject-matter of claim 1 in an obvious way.

D3 and D7 concerned dialysis systems and dealt with the problem of making such systems more user-friendly. In the dialysis systems of these documents the claimed plurality of therapy set-up procedure screens and dialysis treatment screens were also displayed, as disclosed in figures 1 and 2 of D3 and 2 and 3 of D7, in connection with the related description. For the same reasons as given in relation to D2, the skilled person would apply

the teaching of D3 or D7 to the dialysis system of D1, thereby arriving at the subject-matter of claim 1 in an obvious way.

In view of the problem formulated above, the skilled person would also have considered D6, which, similarly to D3 and D7, disclosed a dialysis system displaying the claimed plurality of therapy set-up procedure screens and dialysis treatment screens, on pages 10 and 11 in connection with figures 9 to 11, and on page 49, lines 19 to 21, respectively. Hence, the subject-matter of claim 1 of the patent as granted was also obvious in view of the combination of D1 with D6.

D10 and D10' had been filed with the statement of grounds of appeal as a reaction to the findings in the impugned decision. They should be admitted into the appeal proceedings. Both clearly concerned the same "cyclor" for a peritoneal dialysis system of the kind described in the patent in suit. This "cyclor" comprised a processor and a display. In use, the display showed a plurality of therapy set-up procedure screens that require an operator input (in particular D10, pages 13 to 19 and figures 6 to 9, and D10', pages 11 to 14) and a plurality of dialysis treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy in real time (in particular D10, pages 22 to 26 and figures 13 to 14, and D10', pages 15 and 16). In view of the problem formulated above, the skilled person would apply the teaching of D10 or D10' to the dialysis system of D1, thereby arriving at the subject-matter of claim 1 in an obvious way. The publication year of D10 and D10' could be proven by

the hearing of a witness.

- (d) Dependent claims 2 to 13 did not involve an inventive step over the cited prior art either.

XI. The respondent's arguments may be summarised as follows:

- (a) Splitting the subject-matter of claim 1 of the patent as granted into two separate groups of features was artificial, because it disregarded the inevitable synergy between the operation of the browser, server and display, and displaying the particular therapy set-up procedure screens and dialysis treatment screens as claimed. It was that particular way of operation that made the display device display those screens.

The features relating to the display of a plurality of dialysis therapy set-up procedure screens that require an operator input and a plurality of dialysis treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy possessed a technical character, as those screens represented functional data integral to the operation of the dialysis system. For example, the operation of the system would not be possible without the operator input that is required by the claimed dialysis therapy set-up procedure screens. Displaying the dialysis treatment screens resulted in technical information that could be used by an operator to carry out the dialysis treatment. Therefore, the display of the claimed screens presupposed a specific interaction with the claimed dialysis system and credibly assisted the operator to perform a technical task.

As a consequence, it related to "how" the dialysis treatment should function, and was not limited to the mere content of "what" was displayed. In view of the jurisprudence of the boards of appeal as cited by the appellant, in particular decision T 336/14, these features had to be considered technical and could not be ignored in the assessment of novelty and inventive step.

- (b) The subject-matter of claim 1 was novel over D1, which failed to disclose that the web browser and the web server operate with the display device to display a plurality of dialysis therapy set-up procedure screens and a plurality of dialysis treatment screens as claimed, i.e. the entire characterising portion of claim 1.
- (c) For the assessment of inventive step, D1 was the closest prior art.

The features of the characterising portion of claim 1, which were not disclosed in D1, addressed the problem of providing a safer and more user-friendly dialysis system.

None of the remaining cited documents of the prior art, of which D10 and D10' should not be admitted as having been filed late, disclosed that the display of the dialysis therapy set-up procedure screens and a plurality of dialysis treatment screens was done by the operation of a web browser and a web server together with a display device.

It followed that, even if the skilled person intended to combine the teaching of these documents with D1, the subject-matter of claim 1 of the

patent as granted would not be arrived at.

As a consequence, an inventive step had to be acknowledged.

Reasons for the Decision

1. The appeal is admissible.
2. *The invention*

The invention concerns a dialysis system.

More particularly, as explained in the description of the patent as granted, it may relate to automated peritoneal dialysis (APD).

Together with hemodialysis, peritoneal dialysis is a commonly employed therapy to treat loss of kidney function (paragraph [0004]) by a patient. Peritoneal dialysis utilises a dialysate which is infused via an implanted catheter and then left dwelling in the patient's peritoneal cavity for a certain period of time. There, the dialysate contacts the peritoneal membrane, through which waste, toxins and water from the bloodstream are transferred to the dialysate due to diffusion and osmosis. After the dwelling time the spent dialysate together with the substances transferred to it are drained from the peritoneal cavity and disposed of (paragraph [0005]).

Automated peritoneal dialysis (APD) is a particular kind of peritoneal dialysis in which a dialysis machine automatically performs several drain, fill and dwell cycles overnight, while the patient sleeps. A "last

fill" is typically performed at the end of the treatment, such that, when the patient disconnects from the dialysis machine, the dialysate remains in the peritoneal cavity during the day (paragraphs [0008] to [0010]). Automated peritoneal dialysis (APD) is a convenient treatment for the patient who does not have to go to hospital regularly for hemodialysis and does not need to perform the drain, fill and dwell steps manually.

According to the invention, the dialysis system comprises a display device, and a web server and web browser operating with the display device to display information that may guide an operator through the set-up procedure for performing a dialysis treatment and then illustrate the progress of that treatment.

More particularly, the display shows a plurality of set-up screens that require an operator input and a plurality of dialysis treatment screens that graphically illustrate the progress of one step of the therapy in "at least substantially real time".

As a result, a simplified APD system could be provided, which is ergonomically improved and hence easier for the patient to use and operate (paragraph [0011]).

The parts of the patent as granted which are most relevant for the illustration of the claimed invention are paragraphs [0001] to [0011], [0038] to [0051], [0054] to [0059] and [0293] to [0325] of the description, together with figures 1 to 3B and 30A to 30M.

3. *Technical features of claim 1 of the patent as granted*

One aspect of the appellant's case was the assertion that features defining mere presentation of information did not possess any technical character and should be disregarded in the assessment of novelty and inventive step. This was the case for the features of claim 1 of the patent as granted, according to which the display device is operated to "display a plurality of dialysis therapy set-up procedure screens that require an operator input", and "display a plurality of dialysis therapy treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy in at least substantially real time".

The Board agrees with the appellant that, in accordance with the established jurisprudence of the boards of appeal, non-technical features should be disregarded in the assessment of inventive step. It is therefore crucial to establish whether those features of claim 1 possess a technical character or not.

According to Article 52(2)(d) EPC, presentations of information shall not be regarded as inventions. As a result, features concerning only presentations of information are not to be regarded as technical. The exclusion set out in Article 52(2)(d) EPC aims to protect freedom of expression and information. Consequently, according to the established jurisprudence of the boards of appeal, a feature is to be regarded as a mere presentation of information without technical character if it is defined solely by its information content, in other words if it is exclusively directed to the human mind. Decisions T 930/05 and T 528/07, cited by the appellant, follow this line, since it was considered in both that

features solely concerning a mental concept lacked a technical character.

In the Board's opinion, the claimed features relating to the display of a plurality of dialysis therapy set-up procedure screens and a plurality of dialysis therapy treatment screens possess more than a mere information content directed exclusively to the human mind. The displayed information is not solely defined by its information content, but is inextricably linked to the operation of the claimed system. As the respondent submitted, the operation of the system would not be possible without the operator input that is required by the claimed dialysis therapy set-up procedure screens. In fact, the requirement of an operator input implies the presence of input means in the system and the requirement of a display of a plurality of screens implies a sequence of successive images, each being displayed after a respective operator input via the input means. Moreover, the display of the dialysis treatment screens in real time amounts to technical information pertaining to the state of the dialysis system during the treatment, and assists the operator to monitor the correct operation of the claimed system, which is, as such, a technical task. In other words, the claimed display of a plurality of dialysis therapy set-up procedure screens and a plurality of dialysis therapy treatment screens relates to the interaction between the system and the operator and, hence, implies technical means for the transmission and handling of respective signals contributing to the correct operation of the system. This confers a technical character on the claimed features.

In decision T 553/02, cited by the appellant, it was

held that in a claim directed to a bleaching composition and a set of instructions for using the composition, the instructions were by themselves just a presentation of information without a technical effect on the bleaching composition. However, the present case is different, since, as explained above, the claimed display of information has a direct technical effect on the operation of the claimed system. The analogy alleged by the appellant between the input required in the dialysis therapy set-up procedure screens and the simple turning of pages of a hypothetical standard instruction manual does not hold true. In particular, the operator is not required to turn the pages of a standard instruction manual in order for the system to operate correctly.

Decision T 336/14, more closely related to the subject-matter of the patent in suit, follows the line of the established jurisprudence too. In particular, the deciding board concluded that the display of operating instructions not related at all to any internal system state concerning the proper functioning of the underlying machine (point 1.2.5 of the Reasons) had to be considered a mere presentation of information without any technical character. However, in the present case the situation is different, since the claimed display of a plurality of dialysis therapy set-up procedure screens and a plurality of dialysis therapy treatment screens does relate to the internal system state concerning the functioning of the underlying dialysis system.

For these reasons it is concluded that the claimed features according to which the system is operated to display a plurality of dialysis therapy set-up procedure screens that require an operator input, and

display a plurality of dialysis treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy in at least substantially real time possess a technical character and are to be duly considered in the assessment of novelty and inventive step.

4. *Novelty*

The appellant argued that the subject-matter of claim 1 lacked novelty over D1. Although lack of novelty was not invoked as a ground for opposition in the proceedings at first instance, D1 was considered the closest prior art in the assessment of inventive step. Establishing which features of the subject-matter of claim 1 are known from the closest prior art is inherent to this assessment, which is now to be performed by the Board. The result could be that all of the features of the subject-matter of claim 1 are considered to be known from D1, i.e. that a lack of novelty is established. However, this would not amount to an introduction of a fresh ground for opposition, since it would take place within the assessment of the originally invoked ground of lack of inventive step. The subject-matter of claim 1 would then be held unallowable on that latter ground. This is in line with the reasoning of decisions G 1/95 and G 7/95 (point 7.2 of the Reasons):

"if the closest prior art document destroys the novelty of the claimed subject-matter, such subject-matter obviously cannot involve an inventive step. Therefore, a finding of lack of novelty in such circumstances inevitably results in such subject-matter being unallowable on the ground

of lack of inventive step."

It is not disputed that D1 discloses the features of the preamble of claim 1, i.e. a dialysis system (paragraphs [0001] and [0002]) comprising a display device (15 in figure 1 and paragraph [0013]), a web browser and a web server embedded in the dialysis system (13 and 14 in figure 1 and paragraph [0014]).

It is also not disputed that D1 does not disclose the features that the dialysis system is operated to display a plurality of dialysis therapy set-up procedure screens that require an operator input, and display a plurality of dialysis therapy treatment screens that graphically illustrate the progress of at least one step in the dialysis therapy in at least substantially real time. Rather, the appellant's novelty objection is based on the assumption that these features lack a technical character, and therefore has to be disregarded.

Since those features possess a technical character, as explained above, it is concluded that the subject-matter of claim 1 and, as a consequence, of its dependent claims 2 to 13, is novel over D1.

5. *Inventive step*

5.1 The appellant raised a series of objections as to lack of inventive step, all based on D1 as the closest prior art.

The Board agrees that D1 is the closest prior art, since it is the only cited document that clearly concerns a dialysis system with an embedded web browser

and web server as claimed.

5.2 The Board shares the appellant's view that D1, in addition to the features of the preamble of claim 1, also discloses that the web browser and the web server operate with the display device. In particular, an interaction between the web browser and the web server, and the display device is clearly disclosed in paragraph [0013] and shown in the figure.

However, claim 1 does not just require any interaction between the web browser and the web server, and the display device. Rather, a specific interaction is defined, i.e. that the server and the browser operate with the display to display the set-up procedure screens and the dialysis treatment screens.

In other words, the web server and the web browser manage the specific display of the screens and the operator input, thereby constituting the communication and management platform of the set-up procedure and the treatment. This implies, for example, that the signals related to the operator inputs and to the progress of at least one step in the dialysis therapy are evaluated by the web browser and the web server.

The web server and the web browser of document D1 are intended for the common task of surfing and exchanging data with a data net (paragraph [0014]).

It follows that D1 discloses neither the display of the specific screens as claimed, nor that the display of such screens is done specifically by the web browser and the web server operating with the display device.

In conclusion, the Board agrees with the respondent

that document D1 does not disclose the whole characterising portion of claim 1 of the patent as granted.

- 5.3 The distinguishing features of the subject-matter of claim 1 have the technical effect that the operator is forced to go through the whole set-up procedure of the dialysis system and can readily obtain system state information during operation, under the control of a suitable software platform.

As submitted by the parties, the objective technical problem solved is how to provide a more user-friendly and safer dialysis system.

- 5.4 The appellant argued that the subject-matter of claim 1 was obvious over D1 alone because the skilled person would use the display of the dialysis system of D1 not only to display generic information available on the Internet but also to display information relating to the dialysis treatment and its progress.

However, this argument does not address the fact that, according to the distinguishing features of claim 1, specific screens requiring an operator input are displayed, and that this is all done by the web server and the web browser operating with the display device. This is not derivable from or suggested by D1.

It follows that the subject-matter of claim 1 is inventive in view of D1 alone.

- 5.5 The appellant also argued that the subject-matter of claim 1 was obvious in view of the combination of D1 with D2, D3, D6, D7, D10 or D10'.

As regards D2, the Board agrees with the appellant that, although D2 described in detail an apheresis system, its teaching would be considered by the skilled person also to be applicable to dialysis systems. However, D2 does not disclose all the distinguishing features of claim 1. The apheresis system of D2 comprises a display device adapted to display a plurality of set-up procedure screens (figures 28 to 38) and treatment screens (figure 39 to 41) in connection with a possibly therapeutic (page 3, lines 4 to 12) apheresis procedure. However, it is not disclosed that the display of such screens is specifically carried out by a web browser and a web server operating with the display device. The fact that the dialysis system of D1 comprises a web server and a web browser does not render it obvious to employ them to display the specific screens as claimed. Many software platforms may run on the same server for different tasks. As a rule, specific software is developed for specific tasks. For example, PCs normally have a web browser. That does however not mean that the same web browser must be used to perform all other tasks, such as word processing or spreadsheet calculations.

As regards D3, D6, D7, D10 and D10', it could be argued that they all disclose a dialysis system with a display device displaying a plurality of therapy set-up procedure screens and dialysis treatment screens as claimed. However, as the respondent argued, none of them all disclose that the display is done by the operation of a web browser and a web server together with the display device. Hence, the same reasoning as with respect to D2 applies.

It follows that the subject-matter of claim 1 is also

inventive over of D1 in combination with D2, D3, D6, D7, D10 or D10'.

- 5.6 It follows that the ground for opposition according to Article 100(a) EPC in combination with Articles 52(1) and 56 EPC does not prejudice the maintenance of the patent as granted.
6. Under the circumstances it is not necessary for the Board to consider the respondent's request not to admit D10 and D10' into the appeal proceedings or to establish whether these documents belong to the state of the art.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Hampe

E. Dufrasne

Decision electronically authenticated