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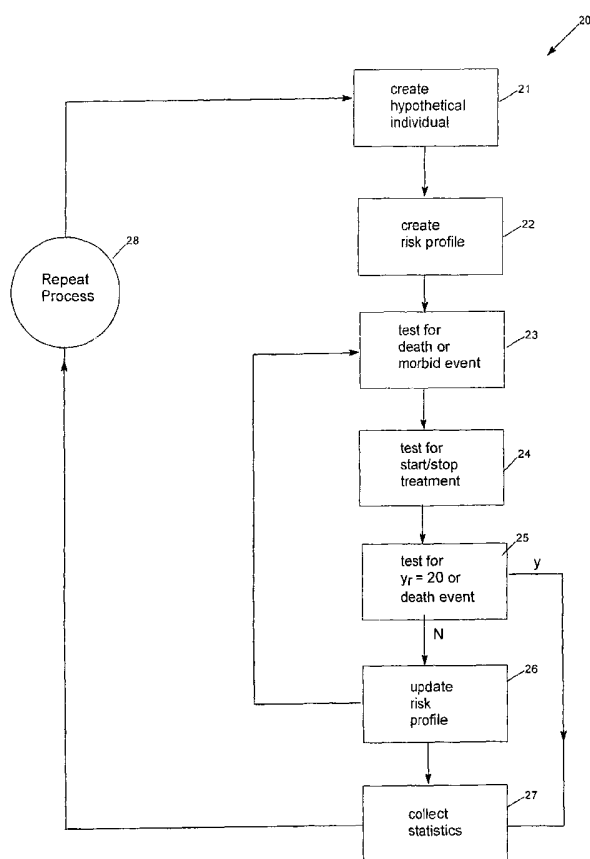
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR EVALUATING THE COST-EFFECTIVENESS OF PROVIDING GROWTH HORMONE REPLACEMENT THERAPY



(57) Abstract: Systems and methods of determining a plurality of cost/utility estimates are used to evaluate the cost effectiveness of providing growth hormone replacement therapy to individuals having growth hormone deficiency. In an exemplary embodiment of the invention, the system has executable instructions for predicting the development of one or more morbidities in an individual having growth hormone deficiency over a simulated life cycle; and for determining and outputting a plurality of cost/utility estimates which may be used by a researcher to evaluate the cost-effectiveness of providing growth hormone replacement therapy.

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INTERNATIONAL SEARCH REPORT

International Application No  
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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F17/60 G06F19/00 A61K38/27</p>												
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<p>B. FIELDS SEARCHED</p>												
<p>Minimum documentation searched (classification system followed by classification symbols) IPC 7 G06F A61K</p>												
<p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p>												
<p>Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, EMBASE, BIOSIS, WPI Data, PAJ</p>												
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p>												
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
A	US 6 385 589 B1 (TRUSHEIM MARK ET AL) 7 May 2002 (2002-05-07) column 2, line 47 - line 67 column 3, line 56 - column 4, line 45 claims 1-9,11,17	1-20										
A	WO 00/67189 A (3M INNOVATIVE PROPERTIES CO) 9 November 2000 (2000-11-09) page 3, line 23 - page 7, line 2 claims 7,17,22,23	1-20										
A	US 5 018 067 A (MOHLENBROCK WILLIAM C ET AL) 21 May 1991 (1991-05-21) column 1, line 14 - line 59 column 2, line 33 - line 35 column 4, line 62 - line 68	1-20										
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<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.      <input checked="" type="checkbox"/> Patent family members are listed in annex.</p>												
<p>° Special categories of cited documents :</p> <table border="0"> <tr> <td>*A* document defining the general state of the art which is not considered to be of particular relevance</td> <td>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>*E* earlier document but published on or after the international filing date</td> <td>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</td> </tr> <tr> <td>*O* document referring to an oral disclosure, use, exhibition or other means</td> <td>*Z* document member of the same patent family</td> </tr> <tr> <td>*P* document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			*A* document defining the general state of the art which is not considered to be of particular relevance	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	*E* earlier document but published on or after the international filing date	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.	*O* document referring to an oral disclosure, use, exhibition or other means	*Z* document member of the same patent family	*P* document published prior to the international filing date but later than the priority date claimed	
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*P* document published prior to the international filing date but later than the priority date claimed												
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## INTERNATIONAL SEARCH REPORT

Intern: Application No  
PCT/IB 03/03887

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BELLAZZI R: "DRUG DELIVERY OPTIMIZATION THROUGH BAYESIAN NETWORKS: AN APPLICATION TO ERYTHROPOIETIN THERAPY IN UREMIC ANEMIA" COMPUTERS AND BIOMEDICAL RESEARCH, ACADEMIC PRESS, LONDON, GB, vol. 26, no. 3, June 1993 (1993-06), pages 274-293, XP001076862 ISSN: 0010-4809 abstract page 282 - page 283 page 288, paragraph 3 -----	1-20
A	WO 98/58338 A (PROMEDICUS SYSTEMS INC) 23 December 1998 (1998-12-23) claims 1-12 -----	1-20

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

Intern: Application No  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6385589	B1	07-05-2002	NONE
WO 0067189	A	09-11-2000	AU 5132999 A 17-11-2000 CA 2371007 A1 09-11-2000 EP 1185947 A1 13-03-2002 JP 2002543534 T 17-12-2002 WO 0067189 A1 09-11-2000
US 5018067	A	21-05-1991	NONE
WO 9858338	A	23-12-1998	AU 8472098 A 04-01-1999 CA 2306017 A1 23-12-1998 EP 1027676 A2 16-08-2000 WO 9858338 A2 23-12-1998