

Claims

1. System for monitoring at least one blood parameter of the blood of different patients including:
 - a multiplicity of access devices each to create at least one access to the blood of each patient through his or her skin;
 - a multiplicity of extraction devices each to extract a blood quantity from each patient to obtain in each case at least one blood specimen;
 - at least one blood analysis device to analyse the blood specimen in relation to predefinable parameters of the blood and to generate individual blood parameter data sets;
 - a calculation device which can be used in common for a multiplicity of blood parameter data sets of different patients to calculate data sets of medicament parameters of the medicaments to be administered to the respective patient on the basis of the individual blood parameter data sets; and
 - a multiplicity of supply devices to supply the respective medicament to the respectively associated patient; andan association device to allocate in each case an identification code to identify a patient and/or a period of time code to specify a period of time in which the blood specimen was taken, to each data set of the medicament parameters calculated by the calculation device of the patient, characterised in that
 - each data set of medicament parameters, including a dose unit, for the respective patient, together with the identification code and/or period of time code, is transmitted as a common data set by hard-wired link or wireless from the calculation device to at least one respective supply device; and
 - the at least one respective supply device supplies a corresponding amount of the respective medicament according to the common data set to the respective patient.
2. System according to claim 1, characterised in that the association device is arranged in the calculation device.

3. System according to claims 1 or 2, characterised by at least one identification element generating device, by means of which, immediately after taking of the blood quantity and before supply to the blood analysis device, each blood specimen can be associated the identification code and/or the period of time code in the form of a barcode, a data matrix code and/or a transponder on the extraction device containing the blood specimen.
4. System according to any one of claims 1 to 3, characterised in that the blood analysis device includes a read unit to read the barcode, data matrix code and/or transponder.
5. System according to claim 4, characterised in that the blood analysis device is connected with the calculation device which is connected with the supply devices for data transfer from the blood analysis device to the calculating device.
6. System according to any one of claims 1 to 5, characterised in that the data sets of the medicament parameters are encrypted.
7. System according to any one of claims 1 to 6, characterised in that the extraction device is a syringe or a blood extraction tube, wherein the barcode, data matrix code and/or transponder is attached to the outside of a blood receiving container of the syringe or the blood extraction tube.
8. System according to any one of claims 1 to 6, characterised in that within the common data set, the data set of medicament parameters with the data of the identification code and/or the period of time code is frequency- and/or amplitude-modulated.
9. System according to any one of claims 3 to 7, characterised in that the common data set is present in binary code.

10. Method for monitoring in each case at least one blood parameter of the blood of different patients with the following steps:

- creation in each case of at least one access to the blood of each patient through his or her skin by means of a multiplicity of access devices;
- extraction of a blood quantity from each patient to obtain in each case at least one blood specimen, by means of a multiplicity of extraction devices;
- analysis of the blood specimen in relation to predefinable parameters of the blood and generation of individual blood parameter data sets by means of a blood analysis device;
- calculation of data sets of medicament parameters of the medicaments to be administered to the respective patients on the basis of the individual blood parameter data sets by means of a calculation device which can be used in common for a multiplicity of blood parameter data sets of different patients; and
- characterised by supply of the respective medicament with the calculated medicament parameters by means of a multiplicity of supply devices to the respective patient,

association in each case of an identification code to identify a patient and/or a period of time code to specify a period of time, in which the blood extraction took place, to each data set of the medicament parameters calculated by the calculation device of the patient by means of an association device,

wherein each data set of medicament parameters for a specific patient is transmitted together with the identification code and period of time code as a common data set by hardwired link or wireless by the calculation device to one or more supply devices.

Claims

1. System for monitoring at least one blood parameter of the blood of different patients (1, 2, 3) comprising:
 - a multiplicity of access devices (1a, 2a, 3a) each to create at least one access to the blood of each patient (1, 2, 3) through his or her skin;
 - a multiplicity of extraction devices (1b, 2b, 3b) each to extract a blood quantity from each patient (1-3) to obtain in each case at least one blood specimen;
 - at least one blood analysis device (7, 9) to analyse the blood specimen in relation to predefinable parameters of the blood and to generate individual blood parameter data sets;
 - a calculation device (15) which can be used in common for a multiplicity of blood parameter data sets of different patients to calculate data sets of medicament parameters of the medicaments to be administered to the respective patient (1-3) on the basis of the individual blood parameter data sets;
 - a multiplicity of supply devices (19 - 21) to supply the respective medicament to the respectively associated patient (1-3); andan association device (13) to allocate in each case an identification code to identify a patient and/or a period of time code to specify a period of time in which the blood sample was taken, to each data set of the medicament parameters calculated by the calculation device (15) of a patient (1-3),
characterised in that
each data set of medicament parameters, including a dose unit, for the respective patient, together with the identification code and/or period of time code, is transmitted as a common data set by hard-wired link or wireless from the calculation device (15) to at least one respective supply device (19,20,21); and
the at least one respective supply device (19,20,21) supplies a corresponding amount of the respective medicament according to the common data set to the respective patient (1-3).

2. System according to claim 1, characterised in that the association device (13) is arranged in the calculation device (15).
3. System according to claim 1 or 2, characterised by at least one identification element generating device (25), by means of which, immediately after taking of the blood quantity and before supply to the blood analysis device (7, 9), each blood specimen can be associated the identification code and/or the period of time code in the form of a barcode, a data matrix code and/or a transponder on the extraction device containing the blood specimen.
4. System according to any one of claims 1 to 3, characterised in that the blood analysis device (7, 9) comprises a read unit (7a) to read the barcode, data matrix code and/or transponder.
5. System according to claim 4, characterised in that the blood analysis device (7, 9) is connected with a calculation device (15) which is connected with the supply devices (19-21) for data transfer.
6. System according to any one of claims 1 to 5, characterised in that the data sets of the medicament parameters are encrypted.
7. System according to any one of claims 1 to 6, characterised in that the extraction device is a syringe or a blood extraction tube, the blood receiving container of which or a connected blood receiving container on the outside is connected with the barcode, data matrix code and/or transponder.
8. System according to any one of claims 1 to 6, characterised in that within the common data set, the data set of medicament parameters with the data of the identification code and/or the period of time code is frequency- and/or amplitude-modulated.
9. System according to any one of claims 1 to 6, characterised in that the common data set is present in binary code.