What is claimed is:

1. A RFID system for checking medical items comprising:

a processor;

a first RFID reader connected with the processor;

a second RFID reader connected with the processor;

a first antenna connected to the first RFID reader and covering a first coverage area;

a second antenna connected to the second RFID reader and covering a second coverage area;

a first tray disposed in the first coverage area;

a second tray disposed in the second coverage area; and

a plurality of RFID tags being respectively attached to a plurality of medical items;

wherein the RFID tags are configured to store identification codes that respectively and uniquely correspond to the medical items that the RFID tags are attached to;

the first RFID reader only reads the identification codes of the medical items from the RFID tags through the first antenna and send the identification codes to the processor before a surgical operation, the second RFID reader only reads the identification codes of the medical items from the RFID tags through the second antenna and send the identification codes to the processor after the surgical operation;

the first tray is adapted to load the medical items before the surgical operation, the second tray is adapted to load at least one of the medical items moved from the first tray during the surgical operation; and

the first coverage area and the second coverage area are mutually exclusive;

wherein the processor stores a first predetermined standard list of the medical items to be loaded in the first tray before the surgical operation, and a second predetermined standard list of the at least one of the medical items to be loaded in the second tray during the operation, and wherein the processor generates a list of missing medical items and a warning after determining that a sum of total numbers of the medical items in the first tray and the second tray after the operation are not identical with a total number of the medical items in the first tray before the operation; and

wherein the first and second trays are open trays.

2. The RFID system of claim 1, wherein the first antenna is embedded in the first RFID reader and the second antenna is embedded in the second RFID reader.

3. The RFID system of claim 1, wherein the processor generates a first list of missing medical items and a first warning after determining that the medical items corresponding to the identification codes read in the first tray are not identical with medical items on a first standard list before the operation; and

the processor generates a second list of missing medical items and a second warning after determining that the medical items corresponding to the identification codes read in the second tray are not identical with medical items on a second standard list after the operation.

4. A method for checking medical items comprising:

before a surgical operation, reading identification codes of a plurality of medical items disposed in a first tray from a first plurality of RFID tags respectively attached to the medical items through at least a first antenna and sending the identification codes to a processor with a first RFID reader; and receiving the identification codes and determining whether the medical items disposed in the first tray are complete according to the received identification codes with the processor; and

after the operation, reading identification codes of at least one of the medical items disposed in a second tray from a second plurality of RFID tags respectively attached to the at least one of the medical items through at least a second antenna and sending the identification codes to the processor with a second RFID reader; and receiving the identification codes and determining whether the medical items disposed in the second tray are complete according to the received identification codes with the processor, and wherein the processor generates a list of missing medical items and a warning after determining that a sum of total numbers of the medical items in the first tray and the second tray after the operation are not identical with a total number of the medical items in the first tray before the operation;

wherein the first antenna covers a first coverage area and the first tray is disposed in the first coverage area; the second antenna covers a second coverage area and the second tray is disposed in the second coverage area; and

the first coverage area and the second coverage area are mutually exclusive;

wherein the first and second trays are open trays.

5. The method of claim 4, wherein the step of determining whether the medical items disposed in the first tray are complete before the surgical operation comprises determining whether the medical items corresponding to the received identification codes are identical with the medical items on a first predetermined standard list predetermined and stored in the processor.

6. The method of claim 4, wherein the step of determining whether the medical items disposed in the second tray are complete after the surgical operation comprises determining whether the medical items corresponding to the received identification codes are identical with the medical items on a second predetermined standard list predetermined and stored in the processor.

7. The method of claim 4 further comprising counting the total number of the medical items in the first tray and sending the total number to the processor with the first RFID reader before the surgical operation, counting the total number of the medical items in the second tray and sending the total number to the processor with the second RFID reader after the surgical operation, and counting the total number of the medical items in the first tray and sending the total number to the processor with the first RFID reader after the surgical operation.

8. The method of claim 7 further comprising determining whether the sum of the total numbers of the medical items in the first tray and the second tray after the operation is equal to the total number of medical items in the first tray before the operation with the processor.

9. The method of claim 8 further comprising

generating an indication of completeness with the processor after determining that the medical items disposed in the first tray and the second tray are complete and determining that the sum of the total numbers of the medical items in the first tray and the second tray after the operation is equal to the total number of medical items in the first tray before the operation; and

generating a list of missing medical items and a warning after determining that the medical items disposed in the first tray or the second tray are not complete or after determining that the sum of the total numbers of the medical items in the first tray and the second tray after the operation is not equal to the total number of medical items in the first

tray before the operation.

10. The method of claim 4, wherein in the step of reading identification codes of the plurality of medical items disposed in the first tray from a first plurality of RFID tags respectively attached to the medical items, the identification codes are read through two antennas, and in the step of reading identification codes of the plurality of medical items disposed in the second tray from a second plurality of RFID tags respectively attached to the medical items, the identification codes are read through another two antennas.

11. The method of claim 4, further comprising:

generating a first list of missing medical items and a first warning after determining that the medical items corresponding to the identification codes read in the first tray are not identical with medical items on a first standard list before the operation; and

generating a second list of missing medical items and a second warning after determining that the medical items corresponding to the identification codes read in the second tray are not identical with medical items on a second standard list after the operation.

12. The method of claim 11, further comprising:

counting total numbers of the medical items in the first tray before and after the operation;

counting a total number of the medical items in the second tray after the operation; and

generating a list of missing medical items and a warning after determining that a sum of the total numbers of the medical items in the first tray and the second tray after the operation are not identical with the total number of the medical items in the first tray before the operation.