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amended claims, 120814

Claims

1. An ostomy device comprising:

an implant arranged, in use, to be located inside the body of a person near the site of a stoma,

discharge device having a tubular member and at least one of an annular disc and a flange member, and

the tubular member has a first end and a second end with a respective opening at each end, the first end is insertable into the intestine of the person via the stoma such that the tubular member is positionable in the intestine of the person to discharge fluid and material from inside the intestine, from the opening at the first end of the tubular member to the opening at the second end of the tubular member, to the exterior of the body of the person, the intestine used to form the stoma, and

the at least one of the annular disc and the flange member is provided at the second end of the tubular member such that the tubular member extends from the at least one of the annular disc and the flange member on a first side of the at least one of the annular disc and the flange member, and the at least one of the annular disc and the flange member is arranged to bear against the exterior of the body of the person near the site of the stoma when the tubular member is positioned in the intestine of the person,

a retention member which, in use, is operatively associated with the implant, the implant and the retention member being magnetically attracted such that the discharge device is removably retained at the site of the stoma by magnetic force, and

a user-operable discharge control valve to open and close to thereby control the discharge of the fluid and material to the exterior of the body of the person such that fluid and material are dischargeable from the tubular member to the exterior of the body of the person when the user-operable discharge control valve is in an open condition and fluid and material are not dischargeable from the tubular member to the exterior of the body of the person when the user-operable discharge control valve is in a closed condition,

wherein the at least one of the annular disc and the flange member is provided with a recess at the first side of the at least one of the annular disc and the flange member and adjacent to the second end of the tubular member such that the recess extends around the second end of the tubular member in a circular manner and is aligned over the stoma when the tubular member is positioned in the intestine of the person, and

wherein an annular inflatable bladder is positioned in the recess adjacent to the second end of the tubular member to closely contact the stoma and to shield the stoma and seal around the site of the stoma at the exterior of the body of the person when the tubular member is positioned in the intestine of the person, and

wherein the user-operable discharge control valve is located adjacent to the second end of the tubular member to discharge fluid and material from the opening at the second end of the tubular member and through the user-operable discharge control valve when the user-operable discharge control valve is in the open condition, to exit the ostomy device to the exterior of the body of the person when the tubular member is positioned in the intestine of the person.

2. An ostomy device according to claim 1, wherein the implant is flexible.

3. An ostomy device according to claim 1 or 2, wherein the at least one of the annular disc and the flange member has an annular plate portion that surrounds the recess and is arranged, in use, to bear against the exterior of the body of the person near the site of the stoma when the tubular member is positioned in the intestine of the person .

4. An ostomy device according to any one of the preceding claims, wherein the discharge device comprises a first portion and a second portion detachably connected together, the first portion having the tubular member and the second portion having the user-operable discharge control valve.

5. An ostomy device according to any one of the preceding claims, wherein the user-operable discharge control valve comprises

a housing,

a sealing member mounted in the housing and movable from a first, closed position, in which the user-operable discharge control valve is in a closed condition and does not allow fluid and material to pass through the user-operable discharge control valve, to a second, open position in which the user-operable discharge control valve is in an open condition to allow fluid and material to pass through the discharge device, and

a handle operable to move the sealing member between the first and second positions to open and close the user-operable discharge control valve,

wherein the handle is operable to open and close the user-operable discharge control valve, in use, to control the discharge of the fluid and material to the exterior of the body of the person.

6. An ostomy device according to claim 5, wherein the user-operable discharge control valve further comprises a valve seat and the sealing member has a convex surface and a concave surface on respective opposed faces thereof, wherein the convex surface is in contact with the valve seat in the closed condition of the user-operable discharge control valve and the convex surface is positioned adjacent an inner surface of the housing and is no longer in contact with the valve seat in the open condition of the user-operable discharge control valve.

7. An ostomy device according to claim 5 or 6, wherein the housing is provided with a neck having a diameter less than the diameter of the portion of the housing that accommodates the sealing member and the valve seat is provided between the neck and the portion of the housing that accommodates the sealing member.

8. An ostomy device according to any one of the preceding claims, further comprising a pressure relief valve to release gas pressure from inside the tubular member, as required, when the user-operable discharge control valve is in the closed condition, and vent the gas from the pressure relief valve.

9. An ostomy device according to claim 8, wherein the pressure relief valve comprises a tube and a closable hole is provided in the sealing member such that a tip of the tube is moveable through the closable hole in the sealing member to allow gas from inside the tubular member to exit and vent through the tube, and the tube is moveable to retract the tip and close the closable hole to return the pressure relief valve to the closed condition.

10. An ostomy device according to claim 9, wherein the pressure relief valve further comprises a spring to bias the tube such that the tip is retracted in the closed condition of the pressure relief valve.

11. An ostomy device according to any one of claims 8 to 10, further comprising a removable cap to close an end of the housing and accommodate the pressure relief valve.

12. An ostomy device according to any one of claims 4 to 11, further comprising securing means, in use, to secure the discharge device at the site of the stoma, and the securing means comprises a case arranged, in use, to be provided between the retention member and the site of the stoma and the case covers the second portion of the discharge device.

13. An ostomy device according to claim 12, wherein the retention member is arranged to be removably mounted to the case.

14. A fluid flow control valve for a medical device comprising

a housing,

a sealing member mounted in the housing and rotatable from a first, closed position, in which the fluid flow control valve is in a closed condition, to a second, open position in which the fluid flow control valve is in an open condition to allow fluid and material to pass through the fluid flow control valve,

a handle operable to rotate the sealing member between the first and second positions to close and open the fluid flow control valve, and

a pressure relief valve to release gas pressure in the closed condition of the fluid flow control valve and vent the gas from the pressure relief valve,

wherein the pressure relief valve comprises a tube and a closable hole is provided in the sealing member such that a tip of the tube is moveable through the closable hole in the sealing member to allow gas to exit and vent through the tube, and the tube is moveable to retract the tip and close the closable hole to return the pressure relief valve to the closed condition, and

wherein the fluid flow control valve is arranged to be provided in a medical device and the handle is operable to rotate the sealing member to open and close the fluid flow control valve to control the passage of fluid and material through the fluid flow control valve when the medical device is in use with the body of a person.

15. A fluid flow control valve according to claim 14, further comprising a valve seat and the sealing member has a convex surface and a concave surface on respective opposed faces thereof, wherein the convex surface is in contact with the valve seat in the closed condition of the fluid flow control valve and the convex surface is positioned adjacent an inner surface of the housing and is no longer in contact with the valve seat in the open condition of the fluid flow control valve.

16. A fluid flow control valve according to claim 15, wherein the convex surface is provided at one side of the sealing member adjacent an opening.

17. A fluid flow control valve according to claim 15 or 16, wherein the housing is provided with a neck having a diameter less than the diameter of the portion of the housing that accommodates the sealing member and the valve seat is provided between the neck and the portion of the housing that accommodates the sealing member.

18. A fluid flow control valve according to any one of claims 14 to 17, wherein the pressure relief valve further comprises a spring to bias the tube such that the tip is retracted in the closed condition of the pressure relief valve.

19. A fluid flow control valve according to any one of claims 14 to 18, wherein a removable cap is provided to close an end of the housing and the removable cap accommodates the pressure relief valve.

20. An ostomy insertion device comprising

a tubular member having a first end and a second end with a respective opening at each said end, the first end arranged, in use, to be inserted into the body of a person to position the tubular member in the body of the person to discharge fluid and material from inside the body of the person, from the opening at the first end of the tubular member to the opening at the second end of the tubular member, to the exterior of the body of a person,

at least one of an annular disc and a flange member is provided at the second end of the tubular member such that the tubular member extends from the at least one of the annular disc and the flange member on a first side of the at least one of the annular disc and the flange member, and the at least one of the annular disc and the flange member is arranged to bear against the exterior of the body of the person when the tubular member is positioned in the body of the person,

the at least one of the annular disc and the flange member is provided with a recess and an annular plate portion provided around the recess, the recess is located at the first side of the at least one of the annular disc and the flange member and adjacent to the second end of the tubular member such that the recess extends around the second end of the tubular member in a circular manner, and

the recess having an annular inflatable bladder provided therein, adjacent to the second end of the tubular member,

wherein, in use, the recess is located such that it is aligned over a stoma of the person when the tubular member is positioned in the body of the person, and the annular plate portion bears against the body of the person around the site of the stoma, and the annular inflatable bladder being inflatable such that inflating the annular inflatable bladder closely contacts the annular inflatable bladder with the stoma to shield the stoma and creates a seal around the site of the stoma at the exterior of the body of the person when the tubular member is positioned in the body of the person.

21. An ostomy insertion device according to claim 24, wherein an inlet is provided in the at least one of the annular disc and the flange member, in use, for injecting air into the annular inflatable bladder to inflate the annular inflatable bladder.

22. An ostomy device according to any one of claims 1 to 13, wherein the retention member comprises a ring or annular disc.

23. An ostomy device according to any one of claims 1 to 13, or claim 22, wherein the magnetic force between the implant and the retention member is adjustable by the user by adjusting the distance between the implant and the retention member.

24. An ostomy device according to claim 23, further comprising one or more spacers to adjust the distance between the implant and the retention member.

25. An ostomy device according to any one of claims 1 to 13, or claims 22 to 24, wherein an inlet is provided in at least one of the annular disc and the flange member, in use, for injecting air into the annular inflatable bladder to inflate the annular inflatable bladder.

26. An ostomy device according to any one of claims 1 to 13, or claims 22 to 25, wherein the retention member includes the at least one of the annular disc and the flange member of the discharge device.

27. An ostomy device according to any one of claims 1 to 13, or claims 22 to 26, wherein the user-operable discharge control valve is operable without engaging the tubular member.

28. An ostomy device according to any one of claims 1 to 13, or claims 22 to 27, wherein the user-operable discharge control valve is operable independently of the operative association of the retention member and the implant.