英 文 照 護 手 冊

目　錄

A.留置尿管的居家照顧

(Home care of in-dwelling catheter)

* 尿道口分泌物，每天用沖洗大棉棒、溫水 (勿加清潔劑) 由上往下沖洗，沖洗時男性包皮向下推露出尿道口。

* 女性撥開大陰唇沖洗，每天至少一次，分泌物多時每天二次。

* The urethral meatus should be cleansed daily using large cotton balls or swab and warm water using a downward motion (see above drawing).

* The male patient’ s prepuce should be peeled back to expose the urethral meatus.

* The female patient's labia majora is pulled apart during cleaning. Cleansing should be done once a day; twice a day if more secretions are encountered.

* 可剪一段褲襪，綁在大腿上以固定尿管，不可綁太緊，每二小時檢查是否受壓、扭曲、拉扯，並擠壓尿管、按摩下腹部（膀胱位置）預防阻塞（男性：固定於大腿前側或下腹部；女性：固定於大腿內側），固定部位可每天更換，以防皮膚過敏或發紅。

The urinary catheter is secured to the thigh with a segment of stockings, taking care not to tie this too tight. Check every 2 hours to see if the catheter is compressed, bent or stretched. Squeeze the catheter and massage lower abdomen

(site of urinary bladder) to prevent clogging of the catheter. Secure catheter to the front of the thigh in men and between the thighs in females. Change the position of the catheter to the other leg every day to avoid skin irritation.

* 病人飲水量，每天至少維持 2000CC 以上（包括灌食的牛奶）

每天可補充：

（1）蔓越梅果汁 240 CC 或健康醋 20-30 CC

（2）維他命 C500 單位，一天一顆，

每日尿量至少維持 1500 CC。如有心衰竭、腎功能不全者，需依醫師指示限制水分

Maintain fluid intake of the patient at 2000cc or more (include milk in the total fluid intake). Give daily supplement of Vit. C (500units).

Maintain urinary output for at least 1500cc daily. If there is cardiac failure or renal insufficiency, fluid is restricted according to the doctor’ s order.

* 尿袋開口隨時關閉，維持低於病人腰部（膀胱）以下，勿放地上至少離地面 5 公分（可放在臉盆裡）

The urinary bag outlet should always be closed. The bag is placed lower than the abdomen (urinary bladder) and at least 5cm above the ground.

* 尿袋應放置在他的腰部以下以防尿液逆流，且須每 8 小時或尿量在尿袋 1/3 處須將尿倒掉。

The urinary bag is positioned below the bladder to avoid backflow of urine. The accumulated urine should be poured out every 8 hours or when the bag is 1/3 full.

* 尿管應避免壓到、扭曲、且須常擠捏尿管以防阻塞，並觀察尿量、顏色、是否混濁。

Observe the urine amount, color and presence of clouding.

* 注意尿管有無阻塞、滲尿；會陰有無紅腫、分泌物，皮膚有無破損、紅疹並記錄之。

Watch out for possible obstruction of the urinary catheter and urine leakage, irritation of the genitals, abnormal secretions or skin wounds and record as needed.

注意事項：有下列現象應聯絡（居家）護理師

NOTE: Please call the home care nurse if the following changes are noted.

1. 尿道口有滲尿情形，雖擠壓尿管但仍未改善 (擠壓的方法為：一手固定尿管的近端，一手往下擠壓)

   Presence of urine leakage persisting after squeezing urinary catheter to clear the presence of obstruction.

2. 無尿液流出，且膀胱脹滿。

   Absence of urine output when the urinary bladder is noted to be full and distended.

3. 血流不止。

   Persistent bleeding.

4. 尿管滑出。

   When urinary catheter drops out.

5. 有尿路感染的現象。

   When signs of urinary infection are present (turbid urine).

B.*膀胱訓練須知*

(Urinary Bladder Training)

* 膀胱訓練法：

*** Urinary bladder training technique :**

1. 將尿袋管對折，並用橡皮筋綁緊。

   Fold the urinary bag tubing and tie this securely with a rubber band.

2. 定時喝水：每小時喝 150~200 CC 或依指示攝取水分。

   Give oral fluids regularly: about 150 – 200 cc per hour or as ordered.

3. 定時放鬆管夾：每 2 小時放鬆（打開）尿袋管 15 分鐘，後再繼續綁緊尿袋管。

   Release the urinary bag tubing regularly: Release tubing for 15 minutes every 2 hours.

4. 訓練時間：睡覺時間除外

   Training period : Training is done the whole day except when patient is sleeping.

* 尿袋管綁緊後，若時間不滿 2 小時患者就有想解尿或小便外滲，表示膀胱訓練有效。

Urinary bladder training is deemed effective if patient has the urge to urinate less than 2 hours after tying up the urinary bag tubing.

* 尿管拔除後，須觀察 4-6 小時有無自己解尿及膀胱脹，必要時與（居家）護理師聯繫。

After the removal of the in-dwelling catheter, observe the patient for 4 – 6 hours if he / she is unable to void and there is urinary bladder distention. If necessary, contact the home care nurse.

* 晚上 9 點以後到隔日早上九點以前不做膀胱訓練，讓病人有好的睡眠，請記得將尿袋管打開。

Urinary bladder training is not done from 9PM to 9AM the following day to allow the patient to sleep comfortably. Please remember to release the urinary bad tubing during this time.

C.膀胱造廔口照顧

(Care of Cystostomy opening)

1. 無菌消毒棉棒沾無菌生理食鹽水由造廔口中心往外環形消毒 5 公分。

   Use sterile cotton balls or swab dipped in sterile normal saline solution to cleanse the cystostomy opening. Clean with a circular motion and away from the cystostomy opening, sterilizing a 5cm area around the opening.

2. 無菌消毒棉棒沾 1 % 優碘藥水由造廔口中心往外環形消毒 5 公分。

   Use sterile cotton balls or swab dipped in 1% beta-iodine solution to clean the cystostomy opening in the same manner mentioned above.

3. 讓優碘藥水停留在皮膚上 30 秒至 1 分鐘（才有消毒效果），再用生理食鹽水擦拭乾淨。

   Allow the beta-iodine solution to remain on the skin for 30 seconds to 1 minute before cleaning one more time with normal saline solution.

4. 用 Y 型紗布覆蓋並固定。

   Use a Y-shaped dressing to cover the wound and plaster in place.

* 何時倒掉尿袋中的尿？

When should the urine be poured out of the urinary bag?

尿量不超過尿袋容量一半且時間不超過 8 小時，一天至少三次。

The urinary bag contents should not fill beyond half the capacity of the bag and should not be kept for more than 8 hours, taking care to pour out the contents at least 3 times a day.

D. *管灌飲食*

(Tube feeding)

1. 灌食時及灌食 1 小時內，將病人頭頸部抬高 30~45 度，以防管灌食物倒入呼吸道，清醒者盡量採坐姿灌食。

When tube feeding and within one hour of feeding, raise the head and neck of the patient 30 – 45 degrees to avoid backflow of food into the airway. Conscious patients should sit up as much as possible.

2. 每次灌食前反抽量小於 50 毫升，可照正常量灌食。若反抽大於 50 毫升，則延緩 1 小時後再反抽檢查。

Before every tube feeding, aspirate to check the stomach contents. Feeding is given if less than 50cc is obtained. If more than 50cc is obtained, check gastric contents after 1 hour before resuming feeding.

3. 反抽有改善時，可減量（約 50 CC）灌食，若一直延後又無法改善，應請教醫師。

If the aspirated gastric contents decrease in amount after the delayed feeding, give 50cc less than the previous amount given. If there is a persistent large amount of gastric aspirate, please refer to the attending physician.

4.灌食食物的溫度，以體溫最適宜，不宜過冷或過熱。

* 灌食速度：將食物倒入灌食器內，讓食物慢慢流入（放低灌食器，以降低速度，不可讓空氣流入）

* 每次灌食後，均需用 30~50 毫升溫水沖洗管子，使管子通暢及防止食物殘留管內。

4. The tube feeding food material should be administered at body temperature. Avoid feeding food that is too cold or too hot.

* Speed of feeding : Pour the food into the feeding syringe and allow the food to flow in slowly. Lower the feeding syringe to slow down the flow of feeding. Avoid letting air enter the feeding tube.

* After every feeding, give 30 – 50c of lukewarm water to flush and clean the feeding tube.

5.切忌藥物與食物混合同時灌食，以防止食物以與藥物發生交互作用（除非醫囑許可）。

Avoid giving medications and food at the same time to avoid drug-food interaction unless instructed to do so.

6.每天將鼻胃管拔出 3-4 公分，隔天再將 3-4 公分推入，每天更換膠布黏貼位置避免潰瘍形成。

Every day, alternately pull out and push in the nasogastric tube by 3 – 4cm. Change the point of plaster fixation of the nasogastric tube daily to avoid skin irritation.

7.病患如果可以活動，應鼓勵平時多做簡易的活動，以幫助消化。

Encourage mobile patients to do simple exercises which is helpful for food digestion.

8.每次灌食量及每天灌食次數，應依營養師指示。如病人已禁食一段時間，剛開時灌食時，應由稀釋濃度及少量供應，然後依個人情況逐漸調整濃度及供應量，以達到全量濃度疾病人所需量。

The amount and number of tube feedings should be given as directed by the dietitian. When resuming feeding in patients who have had no food for a certain period, the food material should be diluted and given in small amounts. Gradual adjustments should be made according to the condition of the patient until the normal concentration and amount of the food material is reached.

9.商業配方應於保存期限內用完，未開灌的置於室溫即可。已開灌未使用完應放冰箱冷藏，並在 24 小時內用完，否則丟棄不用。

Commercially-prepared tube-feeding food should be used before the date of expiration. Unopened cans of food are stored at room temperature while opened cans should be refrigerated and consumed within 24 hours.

10.自行製作的灌食配方，應全部煮熟，製好的成品放涼後應製入冰箱冷藏，冷藏時間不可超過 24 小時。每次灌食前取出所需量隔水加熱或微波加熱，加熱過的管灌食物，勿置於室溫超過 30 分鐘，若超過時間即丟棄。

Home-prepared food should be well-cooked and refrigerated not for more than 24 hours. Heat the needed amount of food for every feeding. Food material heated for feeding should not be kept at room temperature for more than 30 minutes.

11.需注意患者灌食後之反應，若有不良的管灌症候群，如腹瀉、腹脹、嘔吐、便秘等，應請教醫師或營養師。

Observe the patient after every tube feeding for adverse changes such as diarrhea, abdominal distention, vomiting or constipation and consult the attending physician or dietitian when necessary.

E.*蒸氣吸入、姿位引流、背部扣擊*

(Nebulization, Positional drainage and Chest percussion therapy)

* 蒸氣吸入法：

1. 依醫囑加入支氣管擴張劑或化痰劑在蒸氣吸機裡小藥杯中，打開開關吸蒸氣。

2. 若無醫囑則用（1）0.45 % 生理食鹽水 5 CC 或（2）蒸餾水 2.5 CC 加上 0.9 % 生理食鹽水 2.5 CC 置入藥杯中吸蒸氣。

* Nebulization :

1. Place the prescribed medications (bronchodilator or mucolytic) into the medicine cup of the nebulizer.

2. If no medications are prescribed, use (1) 0.45% saline solution or (2) 2.5cc distilled water and 2.5cc normal saline solution, placing this into the medicine cup of the nebulizer.

* 每天在做完蒸氣吸入後或翻身時，讓病人側躺，床頭搖平、床尾搖高。

Positional drainage. After nebulization therapy, place the patient in a lateral position and adjust the bed to position the feet above the level of the head.

* 雙手呈杯狀，扣擊側背部，每次約 5-10 分鐘，之後維持側臥約 30-60 分鐘，使痰液流出。每次扣擊姿位引流應於飯前或飯後 1 小時。

Chest percussion therapy. Chest percussion is done 1 hour before or after meals. Tap the patient’ s back for about 5 – 10 minutes per session with the patient lying on his side to allow positional drainage of respiratory secretions.

* 蒸氣吸入、姿位引流及背部扣擊一天約做 4-5 次，病人若感不舒適則應立即暫停，觀察痰液有無變多變黃情形，需多量體溫或通知（居家）護理師。

Nebulization, positional drainage and chest percussion therapy is done 4 – 5 times a day. This should be stopped immediately if patient feels uncomfortable. Observe for changes of the sputum color to yellow, measure body temperature more frequently and notify the home nurse if needed.

F.*抽痰的方法*

(Suction of respiratory secretions)

1. 打開抽痰管包裝，接上抽痰機的管子，拿出無菌手套戴在右手上，右手抽出抽痰管捲在手上。

Attach the suction catheter to the suction machine tubing. Put on sterile gloves and roll suction catheter around the right hand.

2. 打開開關，先用生理食鹽水或開水潤滑抽痰管，再由氣切、鼻子、嘴巴的順序，小心放入，插入時勿有抽吸的動作（不要按住抽痰管），以免黏膜受損。

Activate the suction machine, wet the catheter with normal saline solution or boiled water before using. Suction the traecheostomy, nose and mouth, in the above order. Take care not to apply suction when inserting the catheter in order to avoid mucosal injury.

3.開始抽吸時，一手按住抽痰管不要放開，一手以輕柔之動作旋轉管子並抽出，抽吸時間勿超過 15 秒。

When doing suction, hold the catheter firmly with one hand while the other hand turns the suction catheter in a circular manner and retracting the catheter at the same time. Suction time should not exceed 15 seconds.

* 抽痰機之抽吸瓶需每天清洗。

The bottle in the suction machine should be cleaned daily.

* 抽痰管插入深度，在氣切管約插入 10-15 公分深，經由口腔到咽部約插入 12-15 公分深。

Suction depth: One may insert the suction tube to a depth of 10 – 15cm into the traecheostomy. A length of 12 – 15 cm is allowable in suctioning the mouth and throat.

G.氣切管的照顧

(Care of the traecheostomy)

* 每天觀察氣切傷口，是否有分泌物、紅腫。

* Inspect the traecheostomy wound daily for presence of secretions or irritation.

* 氣切照慶口護理：

1. 取下 Y 型紗布，以滅菌生理食鹽水棉棒清潔造慶口周圍 5 公分。
2. 取無菌棉棒沾 1 % 優點藥水消毒造慶口周圍 5 公分。
3. 待優碘藥水停留皮膚上 30 秒置 1 分鐘後，用無菌生理食鹽水棉棒擦拭乾淨。
4. 放上 Y 型紗布並貼好。
5. 氣切固定法：綁死結，鬆緊度為可放入一個食指寬度，勿綁活結以免脫落。
6. 每天至少消毒一次，分泌物多時需增加至 2-3 次。

Care of the traecheostomy wound :

1. Remove the protective dressing. Use sterile cotton balls or swab dipped in sterile normal saline solution to cleanse the traecheostomy opening. Clean with a circular motion and away from the traecheostomy opening, sterilizing a 5cm area around the opening.
2. Use sterile cotton balls or swab dipped in 1% beta-iodine solution to clean the traecheostomy opening in the same manner mentioned above.

3. Allow the beta-iodine solution to remain on the skin for 30 seconds to 1 minute before cleaning one more time with normal saline solution.

4. Use a Y-shaped dressing to cover the wound and plaster in place.

5. Tie the traecheostomy securely in place with a “dead” knot. Never use a bowknot which could lead to the traecheostomy tube falling out. The traecheostomy should be loose enough to allow insertion of a finger.

* 鐵頭氣切要每天取出內管消毒

1. 取出內管泡 3 % 雙氧水約 2 分鐘，讓痰液軟化。

2. 以小毛刷刷洗內管內外兩面至乾淨。

3. 放入冷水中煮沸 15 分鐘，待涼後再放回氣管套管內，扣上扣板。

4. 取下內管清潔時，勿超過 30 分鐘以上。

5. 每天至少消毒一次。

* **The inner cannula of the metallic traecheostomy tube should be taken and sterilized everyday.**

1. After removal, immerse the inner cannula in 3% hydrogen peroxide to soften the respiratory secretions.

2. Use a small brush to clean the inside and outside surfaces of the inner cannula.

3. Boil the inner cannula in water for 15 minutes. Allow the piece to cool down. Reinsert the inner cannula and lock in place.

4. Do not remove the inner cannula for more than 30 minutes.

5. Sterilization of the cannula is done at least once a day.

* 鐵頭氣切套管煮沸法：氣切管與冷水一起煮沸後再煮 15 分鐘，後將水倒掉並晾乾，內外管須分開。

Sterilization of the metallic traecheostomy set : The outer and inner cannula of the traecheostomy set are separated. Place in cold water and heat to boiling point. Boil the set for 15 minutes. Pour off the water and dry the set.

* 矽質氣切套管煮沸法 : 先讓冷水煮沸後再放入矽質氣切管煮沸 15 分鐘後熄火，將水倒掉並晾乾，內外管須分開。

Sterilization of the silicone traecheostomy set : The outer and inner cannula of the traecheostomy set are separated. Heat cold water to boiling point before putting in the traecheostomy set. Boil the set for 15 minutes. Pour off the water and dry the set.

* 若痰液顏色變黃、變綠、黏稠，量變多，需要做蒸氣吸入、背部叩擊、姿位引流及抽痰。

If the respiratory secretions become yellowish or greenish in color, become more mucoid or increase in quantity, the caretaker should do nebulization, positional drainage, chest percussion therapy and suction of respiratory secretions.

H.*床上擦澡*

(Bed Bath)

* 將小毛巾弄濕，稍擰乾，包於手上，小毛巾或水髒時即需更換。

Wet a small towel, squeeze dry and wrap around the hand.

* （擦拭方式由內向外）

額頭 →鼻子→ 臉頰→耳朵→頸部

Wiping technique : Wipe the face starting from the middle in an outward direction. Wipe the forehead, nose, cheeks, ears and neck in the above order. (see above diagram)

* 脫去個案身上衣褲，並以大浴巾 1-2 條完全覆蓋之，適當保暖並維護隱私。

Remove the patient’ s clothing. Cover the body with large towels to prevent chilling and ensure privacy.

* 洗澡順序由乾淨部位開始 : 臉→手→腋下→前胸→腹→腿→腳→背→會陰部→肛門

Cleaning sequence : Start with the clean parts. The face > hands > axilla > chest > abdomen > legs > feet > back >pubic area > anus in the above order.

* 水溫 41~43℃，用肥皂清洗，再用溫水擦乾淨，若弄濕傷口敷料需立即重新更換。

The water temperature should be about 41 – 43 degrees Centigrade. Apply soap, clean and wipe with warm water. If the applied dressings get wet, change dressing as soon as possible.

注意事項：

1.關節彎曲、皮膚皺褶的地方，要特別清潔例如：乳下、腋下、腹股。

2.皮膚乾燥，於擦澡後以乳液保養（使用油液或乳液最好是含有羊毛脂，擦拭潤滑乾燥的皮膚）。

3.注意水溫、隱私、安全預防跌倒。

4.每日檢查皮膚至少一次，尤其是骨頭突出處和皮膚皺摺處。

5.大小便失禁者每次換尿褲最好以溫水、中性肥皂清洗。

Note :

1 .Take special care in cleaning the joints and areas where skin folds are present such under the breast, the axilla and inguinal region.

2. If the skin is dry, apply lotion after bathing.

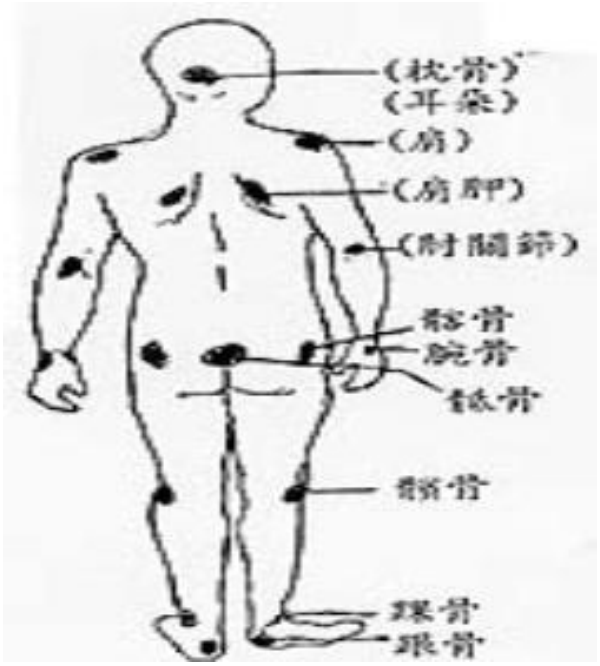
3. Pay attention to the temperature of the water, privacy and safety (avoid falling accidents).

4. Examine the skin at least once daily, especially areas where the bone is more prominent and areas where skin fold are present.

5. Incontinent patients should be cleansed with soap and warm water every time the adult diaper is changed.

I.翻身的須知及壓瘡的預防方法

(Prevention of bed sores)



* 容易形成壓瘡的部位：（如右圖）

Certain areas of the body are more prone to develop bed sores (see above illustration - Pressure Points).

* 隨時保持床單乾燥平整，若有使用氣墊床仍須鋪床單。

Always maintain a clean, dry and orderlybed. Cover the air bed with bed sheets.

* 如果患者有傷口，須依照（居家）護理師指導給予定期換藥。

If the patient has a bedsore, regular change of dressing is done according to the home care nurse’ s instruction.

步驟（Steps in turning the patient ）:

1. 先固定床腳

Lock the bed in place.

2. 將患者移至對側的床邊，並拉起床欄預防患者跌落。

Move the patient to the opposite side of the bed after pulling up the side-rail to prevent the patient from falling off the bed..

3. 至患者將轉過去的對側，將患者近側的手臂移向頭側，遠側的手臂橫放於胸前，遠側的腿區曲放於近側的腿上。

The patient’ s arm near the caregiver is moved over his / her head. The opposite arm is placed over the chest. The opposite leg is placed over the leg near the caregiver.

4. 一手置於患者遠側的肩膀上，另一手置於患者遠側的髖部上，將患者翻轉過來即可。

Place one hand on the patient’ s opposite shoulder and another hand on the opposite hip. Pull to turn the patient over to his side.

5. 確實讓患者感到舒適，並維持良好的身體位置。

1.放置一個枕頭在患者的背部，給予支持。

2.再放置一個枕頭在患者兩腿之間，上面的腿彎曲，放在枕頭上。

3.再用一個枕頭支托患者的手臂及手。

5. Make sure to make the patient comfortable and able to maintain the body position.

1. Place a pillow at the back of the patient to provide support.

2. Place a pillow between the legs. The leg on top is bent and positioned on top of the pillow.

3. Place another pillow under the arm and hand.

6. 再次翻身時，給予受壓部位輕柔按摩。

When turning the patient a second time, massage the body parts which had been under pressure (pressure points).Observe the pressure points for signs of redness, water vesicles or breaks in the skin.

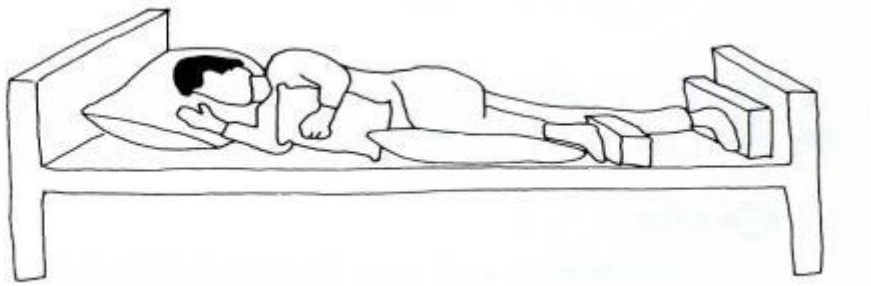
7. 再次翻身時，檢查受壓部位皮膚有無發紅、水泡、破皮。

無法活動的患者或有使用氣墊床者，請每 2 小時協助翻身。

For patients who are unable to move on their own, help the patient turn over every 2 hours.

左右側翻的舒適姿勢：

Proper positioning for side to side turning of patients.



J.高酯血症之飲食

(Diet for hyperlipidemia)

1. 維持理想體重，儘量少喝酒，適當調整生活型態，例如戒菸、運動、壓力調適等等。

   To maintain ideal body weight and drink as less alcohol as possible。Adjust life style to a good state。EX：stopping smoking、exercusing 、controlling pressure。

2. 控制油酯攝取量，少吃油炸、油煎或油酥食物，如豬皮、雞皮、鴨皮等。

   To control the fat intake and avoid fried or oil boiled food like pig skin 、chicken skin and duck skin。

3. 炒菜移用單元不飽和酯肪酸高者（花生油、橄欖油、菜籽油）；少用飽和酯紡酸含量高者（豬油、牛油、奶油等）。

To fry vegetable with high amount of undesaturated fatty acid 。（pea-nut oil、olive oil and vegetable oil）；to avoid using oil that contains much saturated fatty acid （pig oil、cow oil and butter）

4. 少吃膽固醇含量高的食物，如：內臟（腦、肝、腰子）蟹黃、魚卵。每週不宜超過 2-3 顆蛋黃。

To avoid food with high level of cholesterol such as internal organs（brain、liver、kidney），crable eggs and fish eggs。

It is proper to eat less than 2~3eggs a week。

5. 常選用富含纖維質的食物，如未加工的豆類、蔬菜、水果等。

To eat food with much fiber usually，such as unmanufuctured beans 、vegetable、fruit。

K.排便訓練及甘油球灌腸

(Training of stool passage and glycerin ball enema)

- 平時多攝取水果及多飲水，每天早上起床後可手抹嬰兒油依順時針方向按摩腹部。

  To eat much more fruit and dry water ，To massage abdomen with oiled hands（baby oil）in the direction of right clock

  In the early morning after wakung up.

- 每 2-3 天可觸摸腹部有無硬塊，如無解便可用甘油球，戴手套後將甘油球水劑擠入肛門內。

  To paipate the hard masses in side the abdomen each 2-3

  Day.If no stool passing，we may dress the gloves and then

  Push the glycerin ball in to tho anus.

- 待其自然解出後，如有硬便解不乾淨，可戴手套後以中指或食指塗凡士林，伸入肛門把大便挖出。

  After the spontaneous passage of stool，we can see whether

  There is still residnal hard stood.We may dress the gloves and use middle or index fingers with

- 病人如常有滲水便情形，可能是大便解不乾淨，可以灌腸使其解乾淨。

  If the patient usually has watery loosing stool，he may pass the stool not clearly.We may perform the enema for him to clean his anus.

- 病人有時吃軟便劑以排泄，如有腹瀉需減量或暫停使用，並告訴家屬或居家護理師。

  Sometimes the patient takes laxatires to help stool passage，if he has diarrhea，the dose medication should be reduced or be hold 。We should inform the family or home-care nurse。

L.需緊急就醫情形

(The condition that need emergency care)

意識：突然改變、不清醒、叫不醒、昏迷狀況。

Conscious ness： sudden change、 unclear、 not waken up、 coma。

呼吸：每分鐘超過 30 次以上或每分鐘少於 12 次以下，呼吸非常費力、鼻翼煽動、胸部凹陷、呼吸暫停。

Respiration： frequency more than 30/min or less than 12/min，very hard breathing 、nasal flaring、 subcostal retraction apnea。

心跳：突然每分鐘超過 100 次以上或少於 60 次以下。

Heart beat： sudden onset of more than 100/min or less than 60/min。

體溫：超過 38.5 度西，且經過使用一般處理（冰枕、退燒藥、溫水澡）仍無法降溫。

Body temperature： more than 38.5℃，the temperature doesn’t decline after general management （ice pillow、 antipyretics and warm water bath。）

血壓：180/95mmHg 以上或低於 90/60mmHg 以下；血糖高於 400mg/dl 或低於 60mg/dl。

Blood pressure： above 180/95 mmHg or below 90/60 mmHg

血糖：高於 400mg/dl 或低於 60mg/dl

Blood sugar： above 400mg/dl or below 60mg/dl。