



An evaluation of using a computer program to follow up patients with implanted vascular access port



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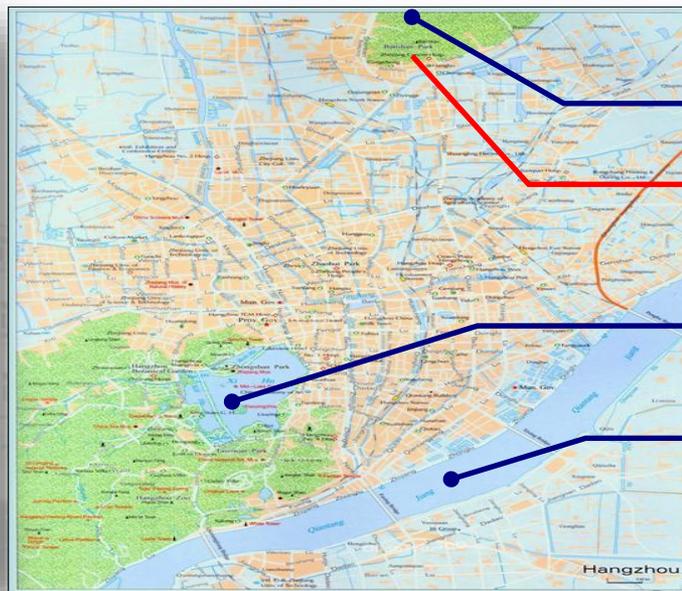
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Zhe Jiang Cancer Hospital

- Established in 1963
- One of the four earliest cancer hospitals in China and the only one in Zhejiang Province
- Integrated with education, cancer control, research



National forest park

Zhejiang Cancer Hospital

10 km to Westlake

10 km to Qian'tang River



Background

- Totally implantable catheter systems have been used in oncology in the mid-1980s in developed countries.
- The use of port catheters have increased substantially over last 10 years in China.
- Most of the implanted surgeries are done in large hospitals located in economic developed cities.
- Specific needles for insertion and nursing capability of patients with port system are not available in local hospital.
- The shortage of nursing training in local hospital is obviously.
- Some patients didn't comply with nursing order frequently.
- The daily complication management may not carry out.



Objective

- Set up an evidence based computer program.
- Using the program to follow up patients with implanted vascular access port.
- Remind the patients to flush the port in hospital for maintaining the patency of vascular access.
- Investigate and find the complications for treatment in time.



Methods

- Organize a multidisciplinary team and based on evidence to set up a computer program
- Two specialty nurses who response the quality of venous access use the program questionnaire in uniform instruction to collect information from patients of symptoms and complying behaviors by phone or Wechat.
- The connection days were the 10th day, the 28th day, the 90th day and the 180th day after surgery.
- Completing of the study Data were through an approximately 30-minutes phone talk containing 503 patients from Sep. 2014 to Dec.2017.
- Descriptive statistics and nonparametric tests were used to evaluate the data.



Results

The results of follow up for patients with implanted vascular access port (n=503)

From OCT. 2014 to DEC. 2017

Items	Classification	Number of cases	Percentage (%)
Gender	Male	180	35.8
	Female	323	64.2
Diagnosis	Breast cancer	312	62.0
	Gastric cancer	79	15.7
	Colorectal cancer	112	22.3
Site of port implanted	Subclavian vein	469	93.2
	Jugular vein	28	5.6
	Femoral vein	6	1.2



Results

The results of follow up for patients with implanted vascular access port (n=503)
From OCT. 2014 to DEC. 2017

Items	Classification	Number of cases	Percentage (%)
	Catheter occlusion	4	0.8
	Pneumothorax	1	0.2
	Extravasation	1	0.2
	Thrombosis	2	0.4
Complications	Catheter fractures	2	0.4
	Infections	3	0.6
	Skin ulcerations	3	0.6
	Pitch-off syndromes	3	0.6
	Difficulty of blood aspirating	12	2.4

the totally complication rate was 6% except the implanting procedure



Conclusion

- The computer program were integrated in collecting information.
- The nurses were pleased with the convenient follow-up system that may improve the outcomes.
- The follow-up can intense the education effects, improve patients complying with nursing order, furthermore reduce the infection rates, increase comfort, improve the quality of life and satisfactions.
- Optimal treatment and complication avoidance require a collaborative effort of all involved medical staffs, not only the physician implanting the port system, but also a trained nursing staff following a standardized procedure.



Implications for Nursing

- It is essential for the physicians and nurses to follow a standardized procedure as using the port system, abide by the manufacturers recommendations: using the system until the wound healed, puncturing under sterile conditions with specific needles, and using a heparin lock after each access or every 4 weeks if the system is not in use.
- Convenient follow-up system used by nurses may effectively improve the outcomes.
- In China, training nursing staffs in local hospital to improve the service capability is urgent, which can help patients easily get the service to increase compliance rate.



THANK YOU!



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