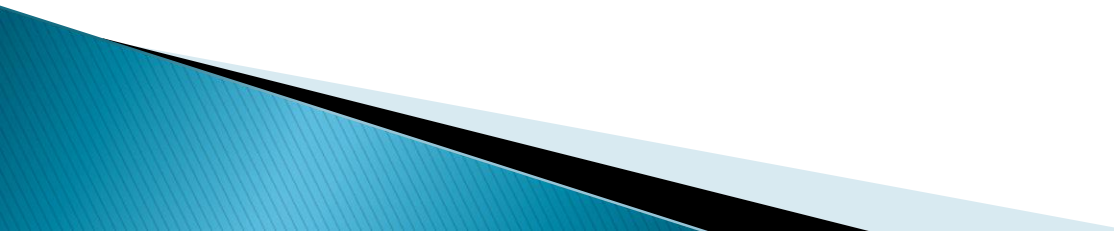
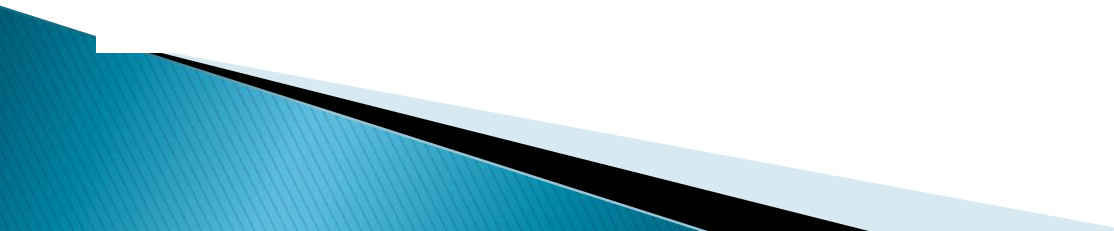


Improving Skin Irritation and Dermatitis Induced by Peripherally Inserted Central Catheters (PICC) in Outpatient Chemotherapy Clinic Patients

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6C/Chemotherapy Clinic
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General Overview

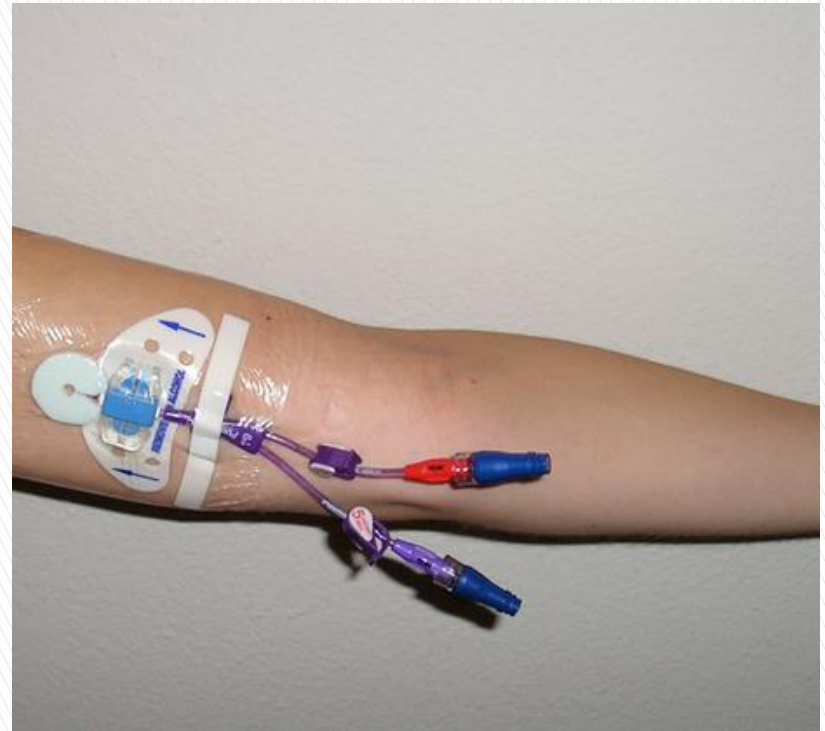
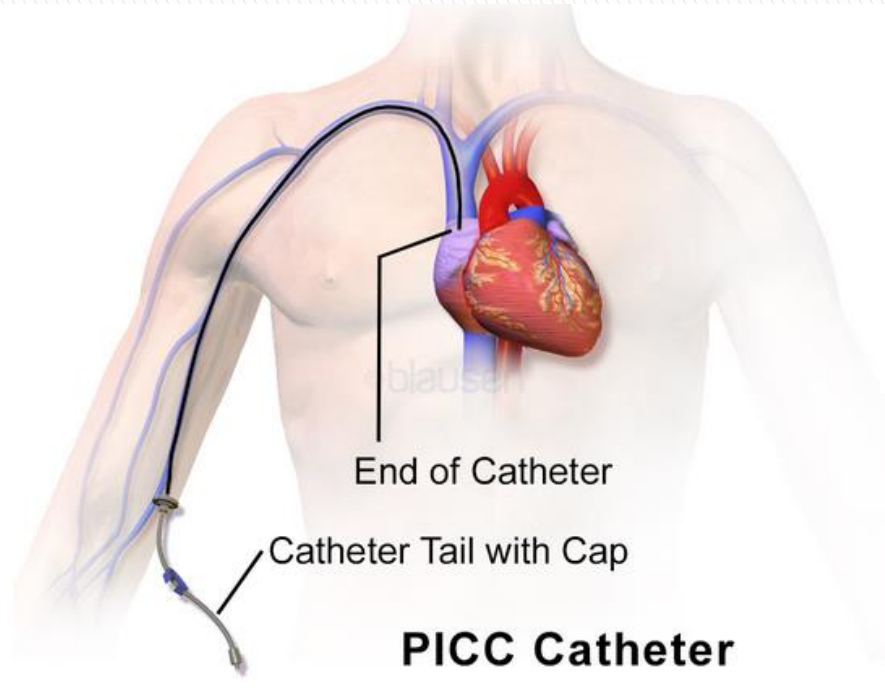
- First line therapy 5FU/Leucovorin
 - 1996 – U.S FDA accelerated approval Irinotecan (with 5FU/Leucovorin) for colon rectal cancer
 - 2004 – Oxaliplatin (with 5FU/Leucovorin)
 - Advancement of medicine
 - Combined multiple agents vs. Single agent
- 

Examples of Chemo Regimen Given through PICC Line

➤ Chemotherapy regimen:

- Head and Neck:
 - Weekly Platin-Containing Drug + daily XRT (6 to 8 weeks) follow by supportive therapy
- Colorectal CA:
 - CIV 5FU x 3-7 days/week + XRT
 - Modified Folfox or Folfiri regimen with 46 hours of CIV 5FU every 2-week cycle for 12 cycles (6 months)
- Breast CA:
 - Taxane-containing regimen (with or without HERS-2 positive)

Normal PICC Line



Internal view of PICC line

External view of PICC line

24 hours post PICC removal



Image of a Dermatitis Skin At the PICC Site



Contributing Factors

Literature Review:

- Chemical and physical agents including frequent exposure to friction
 - 20% – allergen
 - 80% – irritants
 - Women > Men
 - Hands, inner forearm, and eyelids
- Age 50 or older
 - Renewing epidermal cells take 37 days vs. 14 days for younger patients

Objectives / Goal

Avoid -> Protect -> Substitute

- Alternative Method:
 - Cavilon No-Sting Barrier Film
- Additional Interventions:
 - Corticosteroid
 - Antihistamine
 - Different dressing

International Contact Dermatitis Research Group (ICDRG) Scoring Scale

- ▶ For ICD (Irritation Contact Dermatitis)
 - 0 – Negative
 - 1 – Mild erythema
 - 2 – Moderate intense uniform erythema
 - 3 – Intense erythema and edema,
vesiculation or erosion

Data Collection

- Chart Reviews:
 - Pre-implementation of barrier film
(December 1, 2014 to February 28th, 2015)
 - ❖ 33 PICC line placements
 - ❖ 5 patients required PICC line replacement
 - ❖ 1 patient was admitted r/t infection
 - ❖ 9/28 patients (32%) had skin irritation documented

Data Collection

- One patient was admitted to hospital r/t complication:
 - 1/29/15: First PICC placement for FOLFOX
 - 2/17/15: First notice of skin problem →lost PICC
 - 2/20/15: Port-a-catheter was placed
 - 2/26/15: Admitted due to infection
 - port-a-cath was removed
 - antibiotic until 4/14/2015
 - 3/26/15: Second PICC placement
 - 3/31/15: Skin irritation documented (per PICC team)
 - cleansing skin with alcohol solution

Data Collection

➤ Chart Reviews:

- Post-implementation

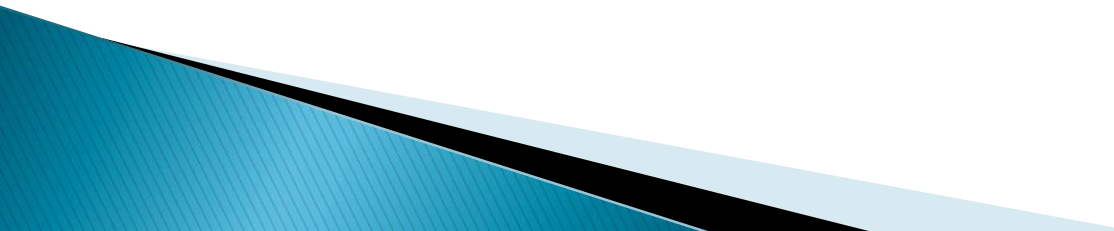
(March 1st, 2015 – May 31st, 2015)

- ❖ 28 PICC line placements

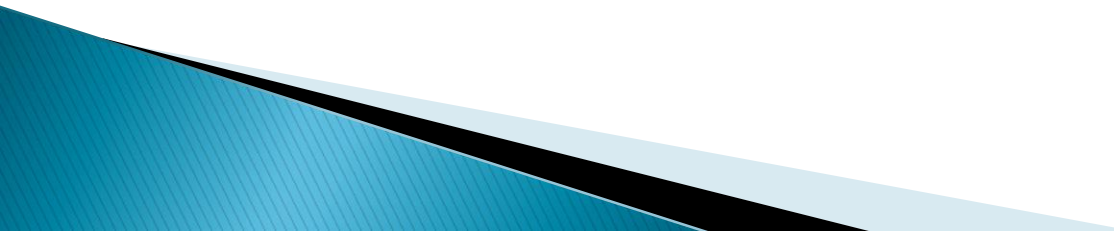
- ❖ 3 patients required PICC replacement

- ❖ 1 / 25 patients (4%) had skin irritation documented (ICD=1, mild erythema)
(1 patient admitted r/t infection + DVT)

Conclusion

- ▶ The results demonstrate a significant improvement.
 - ▶ Further comparison and studies of patients with PICC lines in different settings and a larger scale are suggested to evaluate its efficacy.
 - ▶ Financial analysis
- 

What's Next ?

- ▶ Continuing this new method – adding barrier film into current practice
 - ▶ Continuing observation and assessment for its efficacy
 - ▶ Providing recommendation for changing Nursing policy and procedure
- 

Citations

1. Kutzscher, L. (2012). Management of Irritant Contact Dermatitis and Peripherally Inserted central catheters. *Clinical Journal of Oncology Nursing*, 16(2), 48–55.
2. McNichol, L., Lund, C., Rosen, T., & Gray, M. (n.d.) (2013). Medical Adhesives and Patient Safety: State of the Science. *Journal of Wound, Ostomy and Continence Nursing*, 40(4), 365–380.

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THANK YOU

