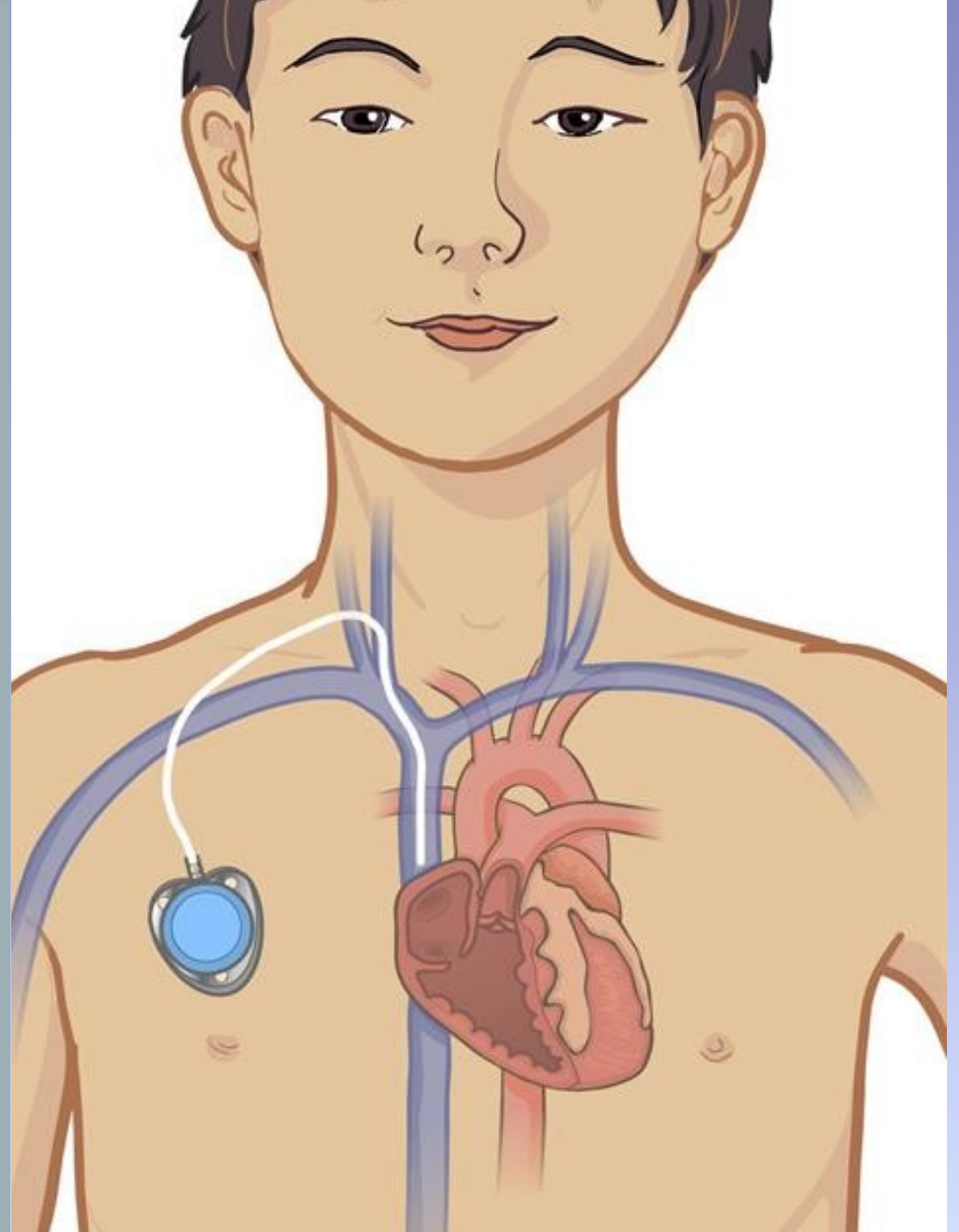


# IS PORT-A-CATH A SAFE AND EFFECTIVE ACCESS FOR IV THERAPY COMPARED TO PICC LINES FOR VETERANS NEEDING LONG TERM IV THERAPY?

An Evidence Based Quality Improvement project  
Guided by the 2018-2019 VA/OHSU Evidence based  
Fellowship program

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Center

WHICH IS THE  
SAFEST IV ACCESS  
AND BLOOD DRAW  
ACCESS?  
WHICH HAS THE  
LEAST  
COMPLICATIONS  
AND HIGHER  
QUALITY OF LIFE?



# TWO COMMONLY USED CENTRAL VENOUS CATHETERS, PERIPHERALLY INSERTED CENTRAL VENOUS CATHETERS(PICC) AND PORT-A-CATH

PORT-A-CATH



PICC LINE



# MAKING CHANGES IN CPRS NURSES NOTES.

emplate: OUTPATIENT MEDICINE - NURSING MEDICINE SUMMARY NOTE

IV Access

New IV placed by: \_\_\_\_\_  
Gauge:  Site:

Ultrasound IV placed by: \_\_\_\_\_  
Gauge:  Site:

Additional IV placed by: \_\_\_\_\_  
Gauge:  Site:

Existing IV site date placed: \_\_\_\_\_ ...  
Gauge:  Site:   
 Patent  Not patent

PICC line site:  Right upper arm  Left upper arm  
 Patent  Not patent

Port-a-cath

Last access: May 6, 2019 ... Site: Right chest \_\_\_\_\_

Site appearance:

no s/s of redness, edema, discharge or pain at site

s/s of redness, edema, discharge or pain at site:  
\_\_\_\_\_

Accessed per protocol with Huber needle: size  
19G 2" \_\_\_\_\_

Aspirated and discarded: 10 \_\_\_\_\_ ml  
Ease of aspiration:

Patent

Difficult to aspirate

Unable to aspirate

Comments:  
\_\_\_\_\_

Aspirated: \_\_\_\_\_ ml

Patient satisfied with port:  Yes  No  
Patient comment:  
I am glad that I have the port. I don't get multiple sticks. \_\_\_\_\_

Comments:  
Patient had multiple peripheral lines and Picc line before. \_\_\_\_\_

Tunneled Catheter:

!!!

All None \* Indicates a Required Field Preview OK

!!!

# Methods

**Revisions in the existing CPRS Nurses Note**

**Chart Reviews of all the patients coming to Infusion area from December 2018- April 2019**

**Track patients who will benefit from Port Placements (Ultra sound IV Placement patients)**

**Refer patients who needs Port placement to chemo providers**

**Patient education**

# RESULTS

Total Number of patients came to OMU with port from December 2018-  
April=28

December-12

January -16

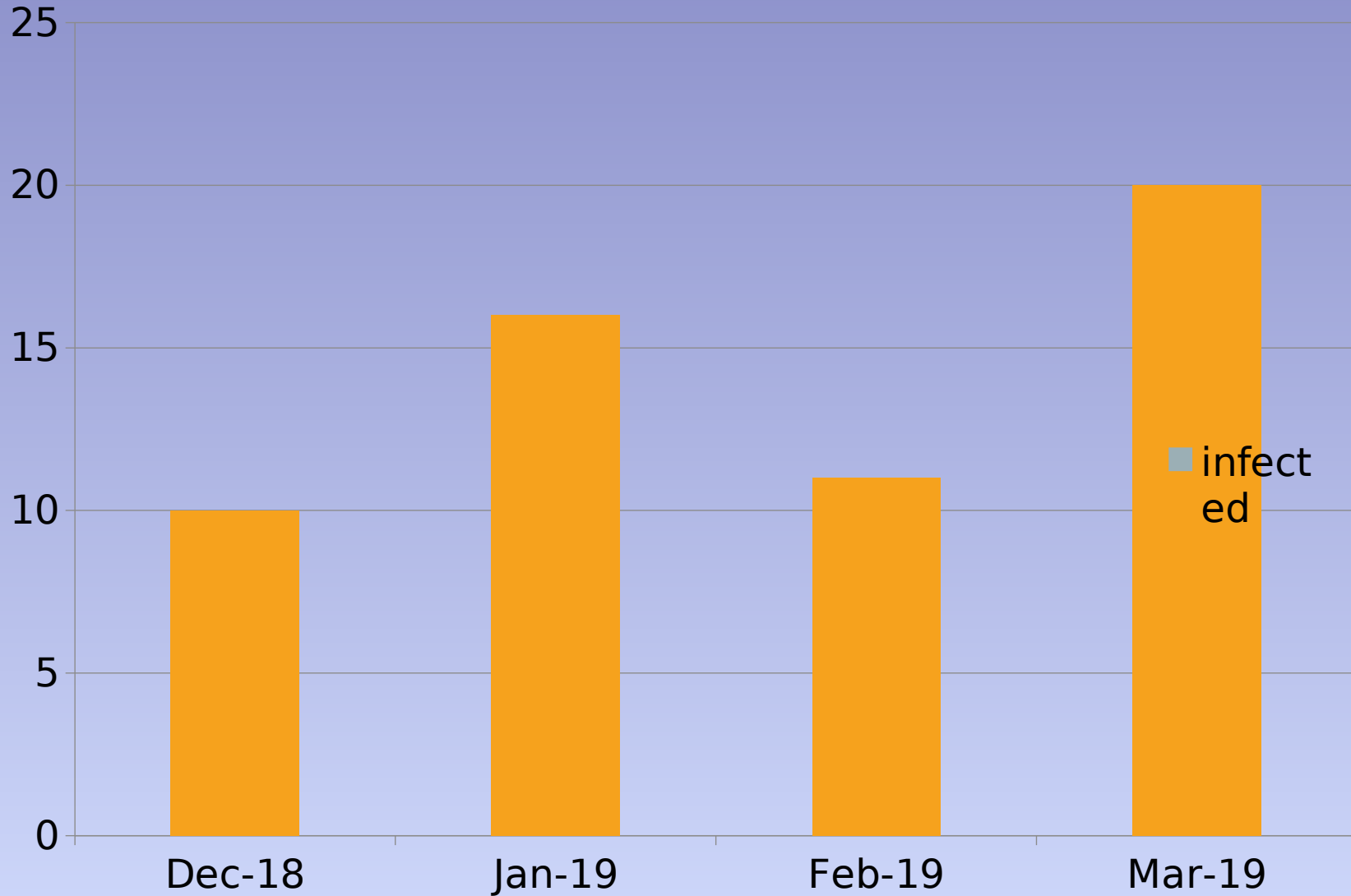
February-11

March-20

Number of Port related infections-0

Overall Patient satisfaction-100%

# NUMBER OF 'PORT A - CATH' PATIENT VISITS TO OMU: 28



Number of Port related infections: 0

# RESULTS

Number of Picc line patients came to OMU from December 2018-April  
2019=21

December-10

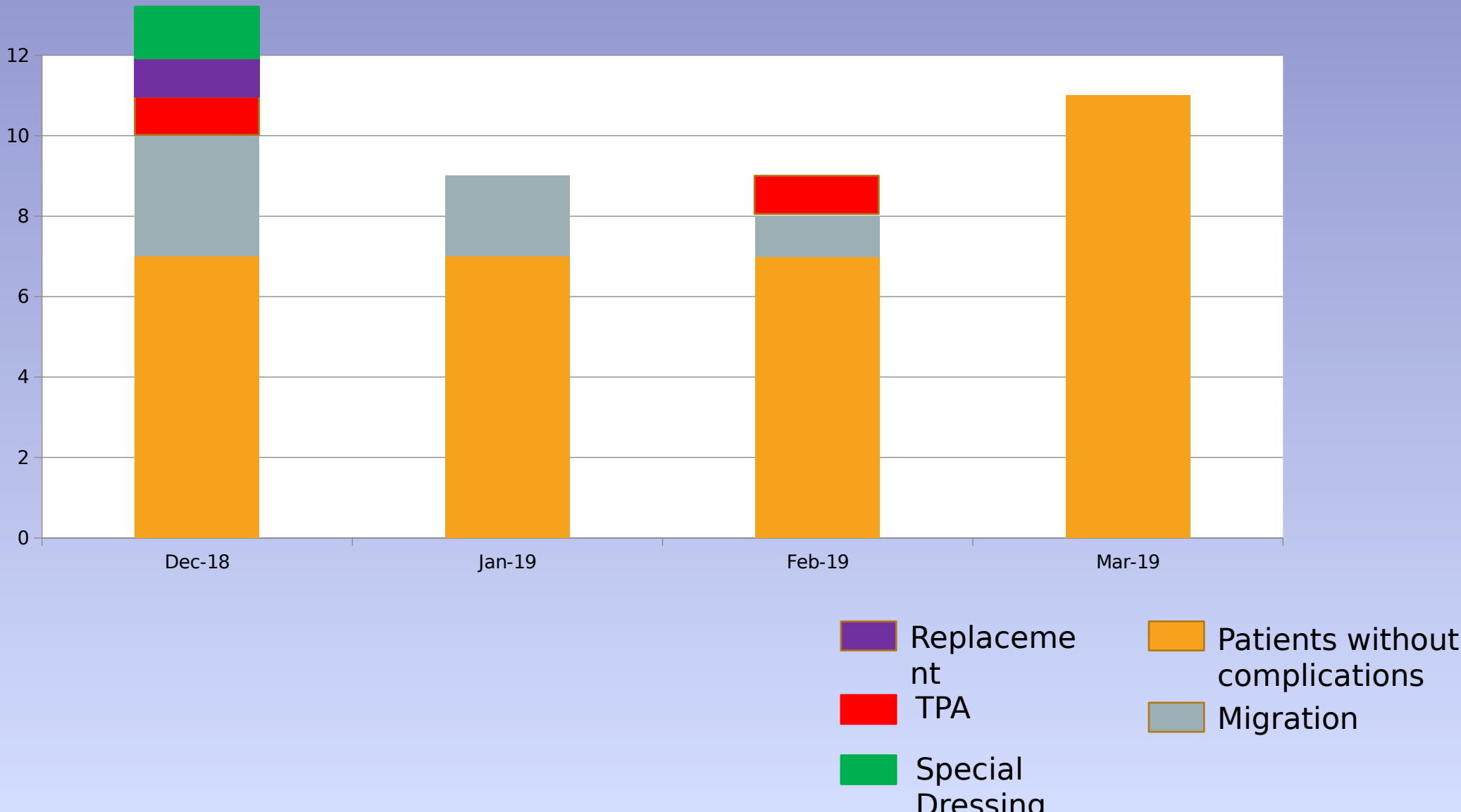
January-7

February-8

March-11



# NUMBER OF 'PICC LINE PATIENT VISITS TO OMU: 21



## COST FACTORS

**\$665 for Port device  
Imaging department and  
OMU staff time  
Port needs monthly flush**

**Picc lines are placed  
anywhere in the hospital by  
Picc Team RN  
X-Ray Expense.  
Weekly Flush  
Cap changes twice a week  
and after blood draws  
Weekly dressing changes  
Treatment of complications.**

# Conclusion

Patient Satisfaction  
with Port: 100%

Infection Rate with  
Port: 0%



# Recommendations / Next Steps

1. Referral
2. Patient Education
3. Track down patients requiring ultrasound IV Placements
4. Continue collecting data

# Limitations

1. Time -Extensive chart review
2. Lack of tracking system
3. Unable to track patients visiting different units

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## Reference List

Optimal vascular access strategies for patients receiving chemotherapy for early-stage breast cancer: a systematic review. Robinson A, Souied O, Bota AB, Levasseur N, Stober C, Hilton J, Kamel D, Hutton B, Vandermeer L, Mazzarello S, Joy AA, Fergusson D, McDiarmid S, McInnes M, Shorr R, Clemons M. *Breast Cancer Res Treat*. 2018 Oct;171(3):607-620. doi: 10.1007/s10549-018-4868-x. Epub 2018 Jul 4. Review.

PMID:29974358

Vessel Health and Preservation: a model and clinical pathway for using vascular access devices. Moureau NL, Carr PJ. *Br J Nurs*. 2018 Apr 26;27(8):S28-S35. doi: 10.12968/bjon.2018.27.8.S28.

PMID:29683752

ACR Appropriateness Criteria ® Radiologic Management of Central Venous Access. Expert Panel on Interventional Radiology:, Shaw CM, Shah S, Kapoor BS, Cain TR, Caplin DM, Farsad K, Knuttinen MG, Lee MH, McBride JJ, Minocha J, Robilotti EV, Rochon PJ, Strax R, Teo EYL, Lorenz JM. *J Am Coll Radiol*. 2017 Nov;14(11S):S506-S529. doi: 10.1016/j.jacr.2017.08.053.

PMID: 29101989

Comparison of three types of central venous catheters in patients with malignant tumor receiving chemotherapy. Fang S, Yang J, Song L, Jiang Y, Liu Y.

*Patient Prefer Adherence*. 2017 Jul 12;11:1197-1204. doi: 10.2147/PPA.S142556. eCollection 2017.

PMID:28744109