

Potential Benefits of a Dedicated Difficult Urinary Catheter Team: The 4-Year Experience at a Single Institution

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T | UROLOGY

No disclosures

Introduction

- Anatomic and iatrogenic factors contribute to difficulties with foley placement
- Over 100 indications for catheterization
- According to CDC 2018, 12-18% of adults admitted will have a catheter during their stay
- Roughly 6% of urology consults involve difficulties with catheterization
- 33% of urethral strictures are felt to be iatrogenic in nature

Introduction

- Formal nursing training on navigation of difficult catheter scenarios (strictures, meatal stenosis, large BPH, and others) may improve patient care and reduce urologic intervention
- A four year retrospective review of outcomes at one center offers insight into the potential benefits of this inpatient team

Materials & Methods

- Review of all DUC consultations from May 2013 to May 2017
- Formal training offered in 2012 to 34 nurses in 3 high volume units and the ED
- Formulated algorithm for nurses to determine DUC team candidates
- DUC members educated inpatient units

Materials & Methods








- Cases for early consultation: prior DUC placement, RP/TURP, urethral stenosis, pelvic radiation, hypospadias, unable to visualize meatus
- Algorithm
 - No more than 2 prior foley attempts prior to DUC consultation
 - 10 cc of 2% lidocaine lubricant injected 2-5 minutes prior in male patients
 - 18 french coude in cases of BPH, 12 french silastic in urethral stenosis



T UROLOGY Results

Of the Successful Caths						
Type of Cath	Total Number	% of Total	Male	% of Total	Female	% of Total
8 Straight	2	0.46	0	0.00	2	1.09
10 Straight	5	1.15	3	1.21	2	1.09
10 Coude	1	0.23	1	0.40	0	0.00
12 Coude	22	5.06	11	4.44	9	4.92
12 Straight	91	20.92	46	18.55	45	24.59
14 Straight	9	2.07	2	0.81	7	3.83
14 Coude	30	6.90	20	8.06	8	4.37
16 Straight	78	17.93	15	6.05	63	34.43
16 Coude	46	10.57	29	11.69	17	9.29
18 Straight	5	1.15	2	0.81	3	1.64
18 Coude	104	23.91	89	35.89	15	8.20
20 Straight	1	0.23	1	0.40	0	0.00
20 Straight 3-Way	5	1.15	3	1.21	2	1.09
20 Coude	5	1.15	3	1.21	2	1.09
20 Suprapubic	9	2.07	4	1.61	5	2.73
22 Straight	1	0.23	1	0.40	0	0.00
22 Straight 3-Way	4	0.92	3	1.21	1	0.55
22 Fr. Coude	3	0.69	3	1.21	0	0.00
22 Fr. Suprapubic	3	0.69	2	0.81	1	0.55
24 Straight	3	0.69	3	1.21	0	0.00
24 Straight 3-way	6	1.38	5	2.02	1	0.55
24 Coude	1	0.23	0	0.00	1	0.55
24 Straight Suprapubic	1	0.23	1	0.40	0	0.00
26 Straight Suprapubic	1	0.23	1	0.40	0	0
Total	436		248		184	

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26 Straight Suprapubic	1	0.23	1	0.40	0	0
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Results

Of the Unsuccessful Caths

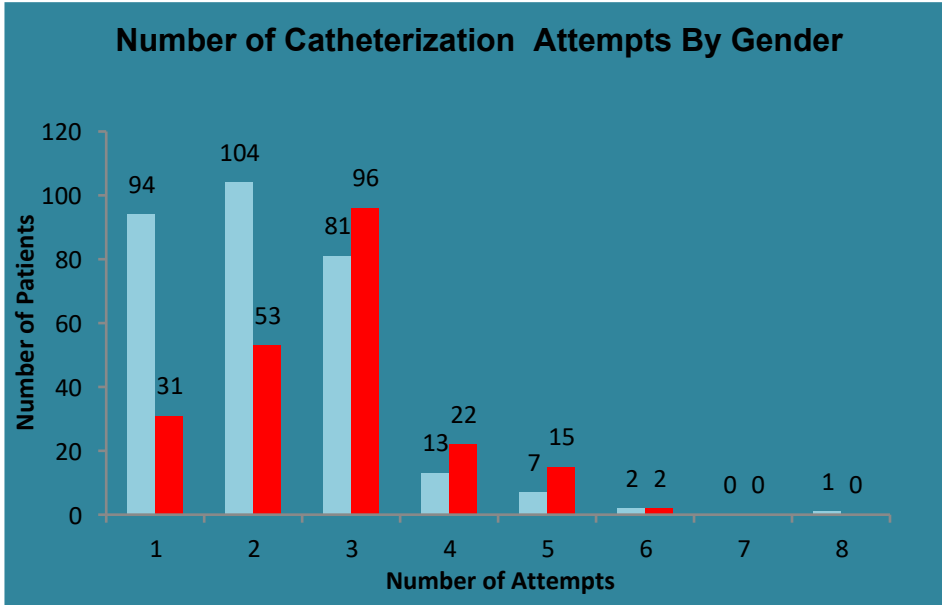
Type of Cath	Total Number	% of Total	Male	% of Total	Female	% of Total
12 Coude	4	8.16	3	10.34	0	0
12 Straight	23	46.94	11	37.93	11	68.75
14 Coude	6	12.24	4	13.79	1	6.25
16 Fr.	1	2.04	0	0.00	1	6.25
16 Coude	3	6.12	2	6.90	1	6.25
18 Coude	11	22.45	8	27.59	2	12.5
24 Straight 3-way	1	2.04	1	3.45	0	0
Total	49		29		16	

Results

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Total	49		29		16	

Results



- 529 patient consults over this period
- Average attempts: 2.4
- Average duration: 35 minutes
- 88.6% successful without consultation
- Consults from 6 A.M. to 6 P.M. made up 65% of cases
- Most common catheter was 18 french coude (23.9%) in men and 16 french foley (34.4%) in women

	All	Male	Female
Average length (minutes)	35.05	35.23	34.73

	All	Male	Female
Number Unsuccessful	60	42	18
Number Successful	469	268	201
% Successful	88.66	86.45	91.78

Time Called	Number of Calls	% of Total
10 pm - 2 am	72	14.01
2 am - 6 am	45	8.75
6 am - 10 am	62	12.06
10 am - 2 pm	126	24.51
2 pm - 6 pm	155	30.16
6 pm - 10 pm	69	13.42
Total	529	

Success of a urinary catheter insertion team in reducing urinary infections in the ICU

Deianira Regagnin, Debora Schettini da Silva Alves, and
Luciana Reis Guastelli

[Additional article information](#)

- 12 month period in 2013 with ICU team dedicated to catheter insertion
- Reduction in CAUTI by 57.2%
- Reduction in unnecessary utilization rate by 13.4%

Conclusions

- Algorithm offers inexpensive method to reduce potential injuries and reduce consultation
- Over this period, 468 consultations prevented
- DUC teaching can likely be replicated at other institutions

References

- Regagnin D, Silva Alves DSD, Guastelli LR. Success of a urinary catheter insertion team in reducing urinary infections in the ICU. *Crit Care*. 2015; 19(Suppl 2):P44. doi:10.1186/cc14690