

When to Cross: A single center retrospective study of transfusion stewardship for patients with placenta accreta spectrum disorder

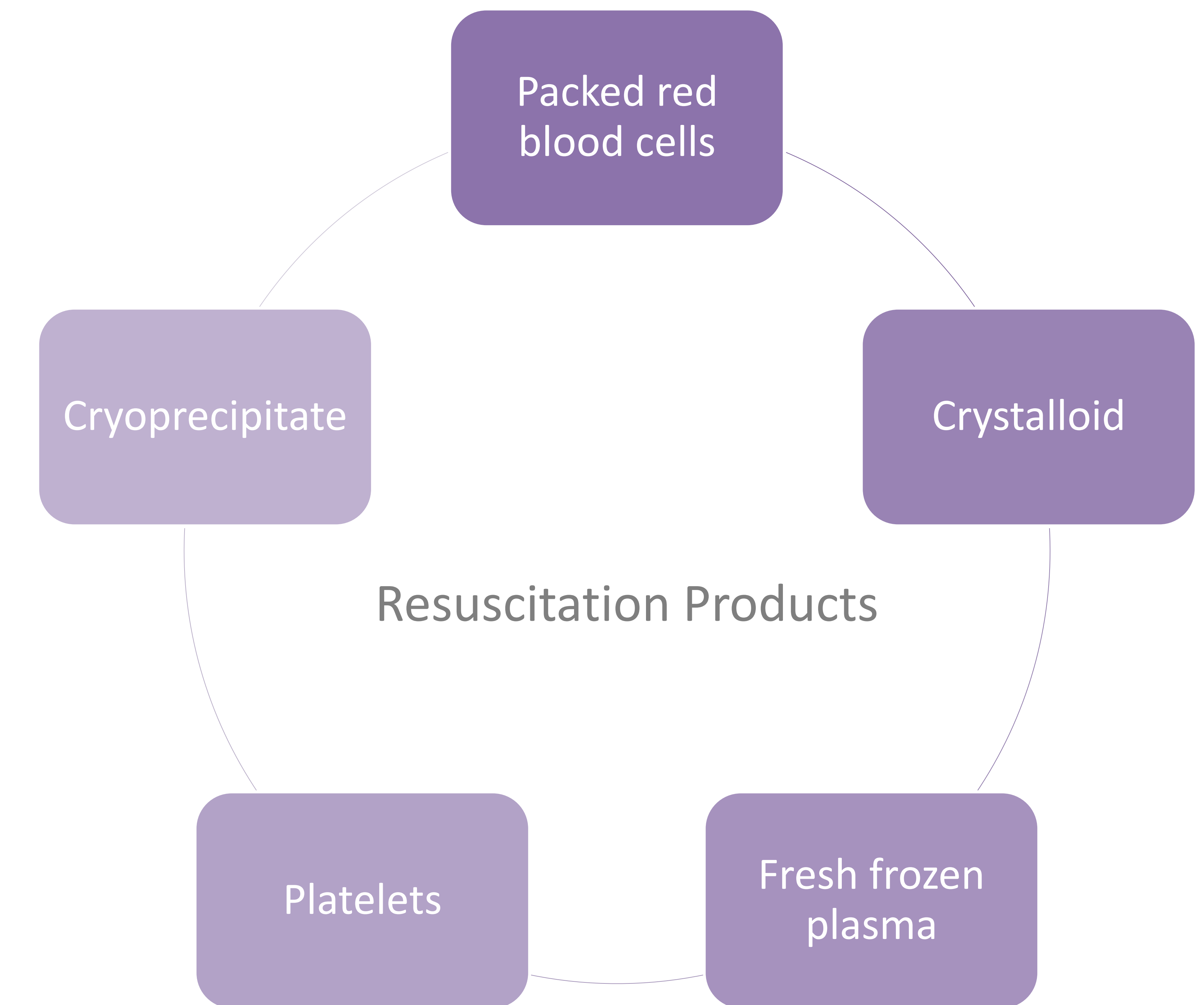
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Background

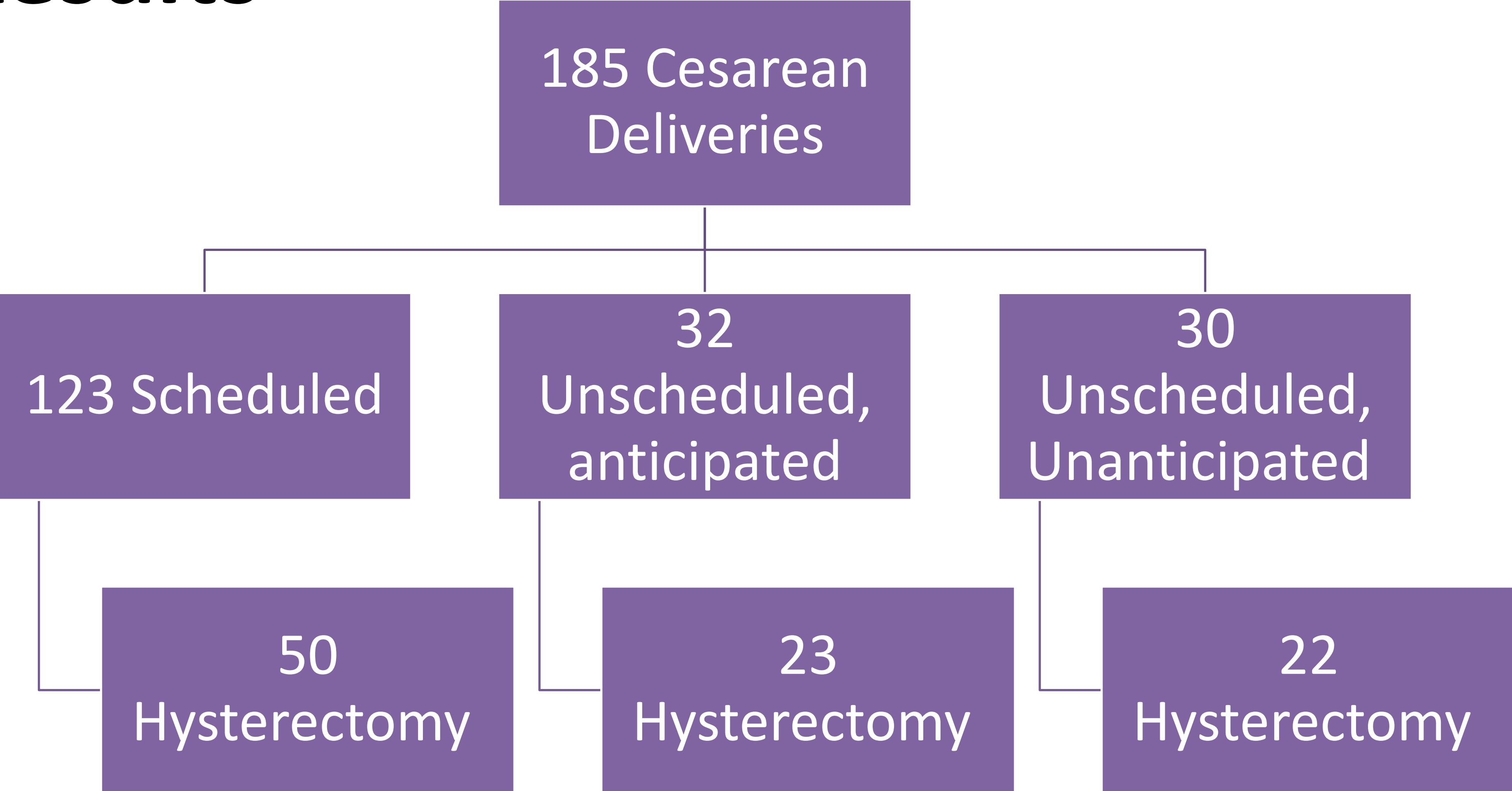
- Placenta accreta spectrum (PAS) disorders place patients at risk for hemorrhage.
- In an era of blood product shortages, one must evaluate blood product allocation.
- Hypothesis: The obstetric massive transfusion protocol allocates more blood products than necessary for the scheduled hysterectomy in the setting of PAS.

Methods

- Retrospective chart review from July 2009 to June 2021
- Inclusion criteria: parturients with a diagnosis of PAS



Results



PAS Cases: Blood Component Therapy

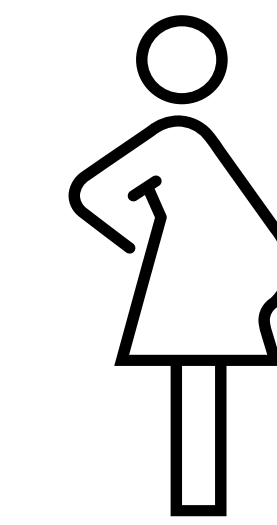
		Scheduled	Unscheduled, anticipated	Unscheduled, unanticipated	P
Attempted placental extraction		83 (67%)	15 (46%)	28 (93%)	0.00
Estimated blood loss (mL)		1500 (800-3000)	2100 (1275–2500)	1600 (1000-3300)	0.20
Proportion of patients with blood products ordered	Packed red blood cells	79 (64%)	28 (87%)	14 (46%)	0.00
	Fresh frozen plasma	67 (54%)	23 (71%)	5(16%)	0.00
	Cryoprecipitate	45 (36%)	15 (46%)	4(13%)	0.01
	Platelets	0	0	0	0.29
Proportion of patients who received blood products	Packed red blood cells	43 (34%)	19 (59%)	13 (43%)	0.04
	Fresh frozen plasma	21 (17%)	9 (28%)	8 (26)	0.25
	Cryoprecipitate	18 (14%)	10 (31%)	8 (26%)	0.05
	Platelets	4 (3%)	5 (15%)	3 (10%)	0.02
Number of products received	Packed red blood cells	10 (6-10)	6 (6-10)	2 (2-6)	0.00
	Fresh frozen plasma	4 (0-4)	4 (0-5)	0 (0-0)	0.00
	Cryoprecipitate	4 (0-2)	4 (0-2)	0 (0-0)	0.00
	Platelets	2 (1-2)	1(1-3)	2(1-2)	0.29
Final pathology consistent with PAS		76 (70%)	25 (83%)	27 (93%)	0.02

- 41% of cases required blood transfusion:
- 41% received packed red blood cells
 - 20% received fresh frozen plasma
 - 20% received cryoprecipitate
 - 6% received platelets

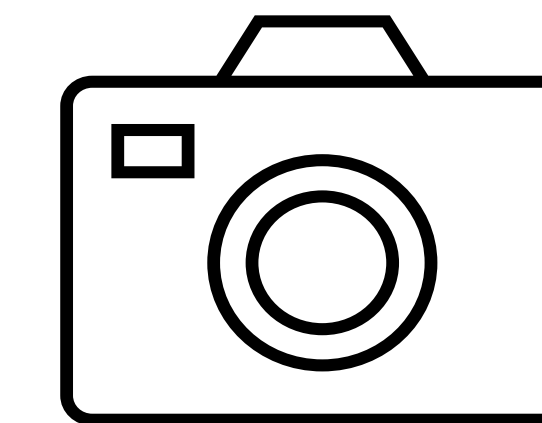
Discussion

- Increasing incidence of PAS necessitates one to appreciate the inherent risk of hemorrhage.
- Our data suggests that the transfusion requirement is low for the scheduled hysterectomy due to PAS.

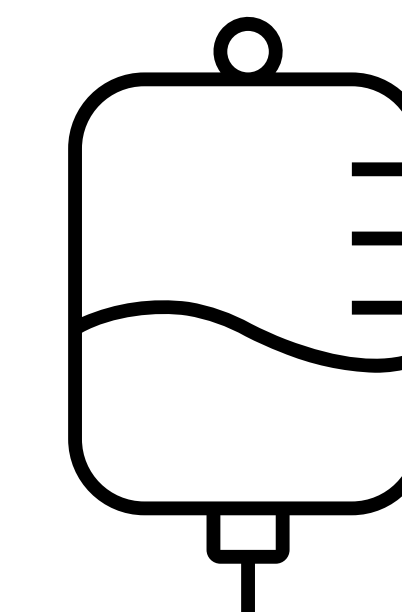
Massive transfusion bundles allocated for planned and anticipated PAS cases should be tailored to include fewer blood products.



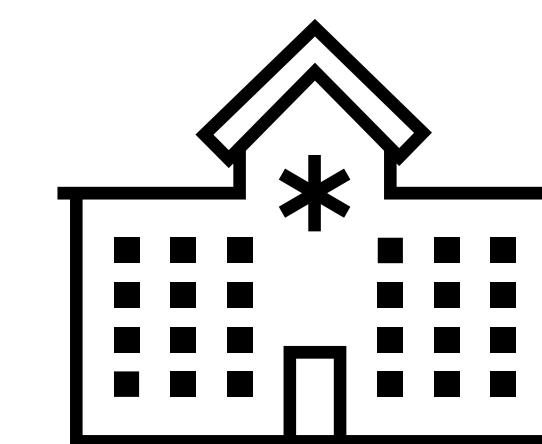
Risk factors for PAS include prior uterine incision.



No imaging modality is 100% specific or sensitive for a diagnosis of PAS.



Significant hemorrhage can occur in the setting of unrecognized and undiagnosed PAS.



When possible, deliveries with PAS should occur during regular hours when additional staffing is available.

References:

- Committee on Obstetric P. Committee opinion no. 529: placenta accreta. *Obstetrics and gynecology*. Jul 2012;120(1):207-11.
- Warrick, Christine, , et al. "Placenta Accreta Spectrum Disorders: Knowledge Gaps in Anesthesia Care". *Anesthesia & Analgesia*, vol. Publish Ahead of Print, January 24, 2022,