



# Mind the GAPP: Global Arrivals and Pre-treated Patient Screening at a Children's Cancer Center

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## BACKGROUND

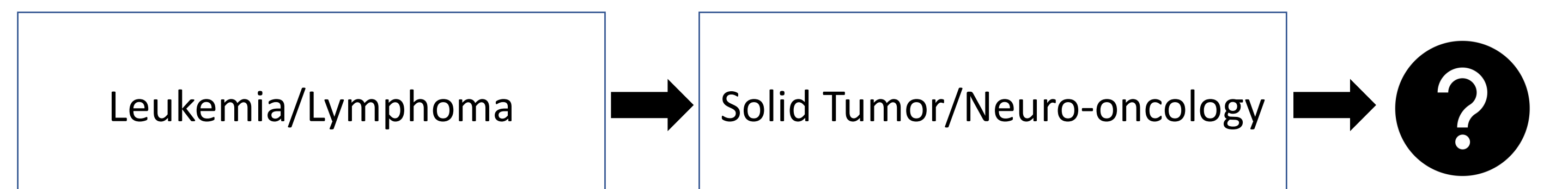
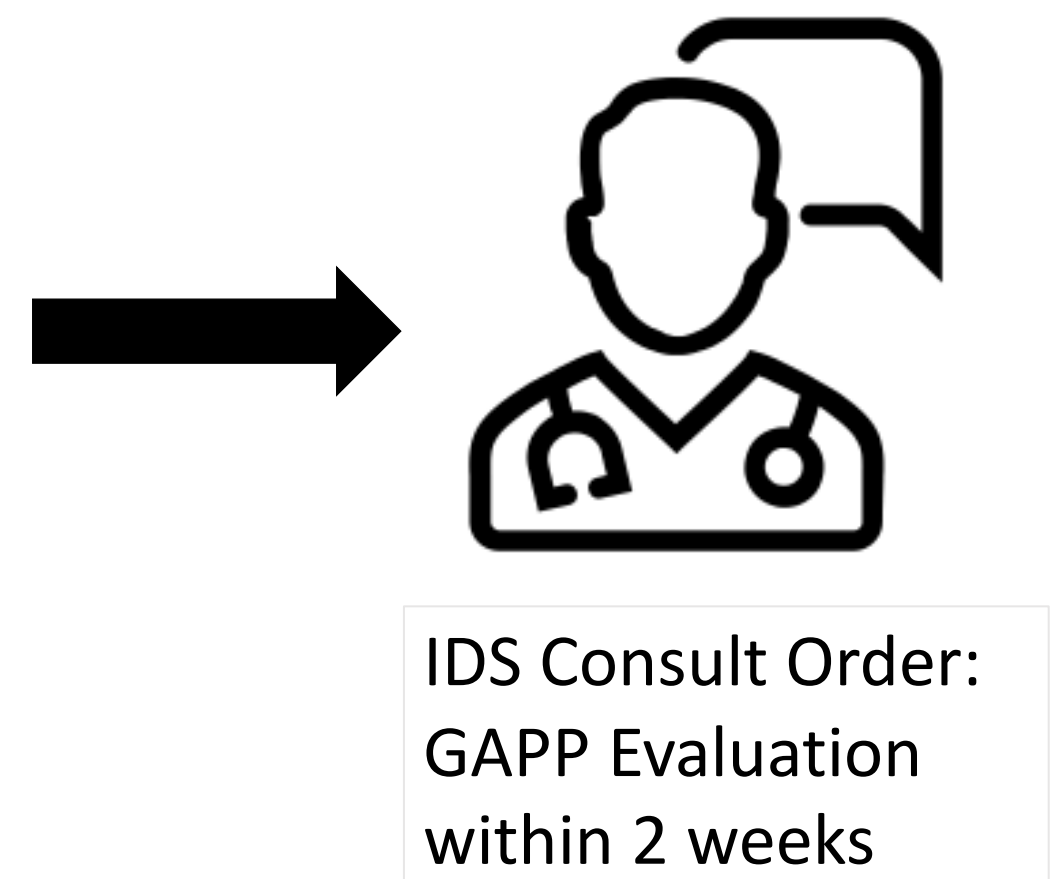
- Standard health evaluation, including infectious diseases screening, is recommended for immigrant children, international adoptees, and refugees.
- Children receiving immunosuppression may additionally benefit from identification of infections that may reactivate.
- Justifiable to increase quality of care delivery and optimize infection management during cancer-directed therapy.

## OBJECTIVES

Review	Recommend Screening Tests	Recommend Management
<ul style="list-style-type: none"> <li>Past infections</li> <li>Colonization or infection by antibiotic resistant organisms</li> <li>Past treatments</li> <li>Past prophylaxis</li> <li>Immunization status</li> </ul>	<ul style="list-style-type: none"> <li>Travel History</li> <li>Clinical history</li> <li>Exposures</li> </ul>	<ul style="list-style-type: none"> <li>Directed therapy</li> <li>Fever plans</li> <li>Prophylaxis modifications</li> <li>Infection prevention (Communicable diseases and isolation recommendations)</li> </ul>

## METHODS

Referral criteria
<ul style="list-style-type: none"> <li>Continental US for 1 year or less</li> <li>Recent travel history (last 3 months) outside the continental US</li> <li>Hospitalization outside the continental US</li> <li>Other patients per treating clinician assessment*</li> </ul>

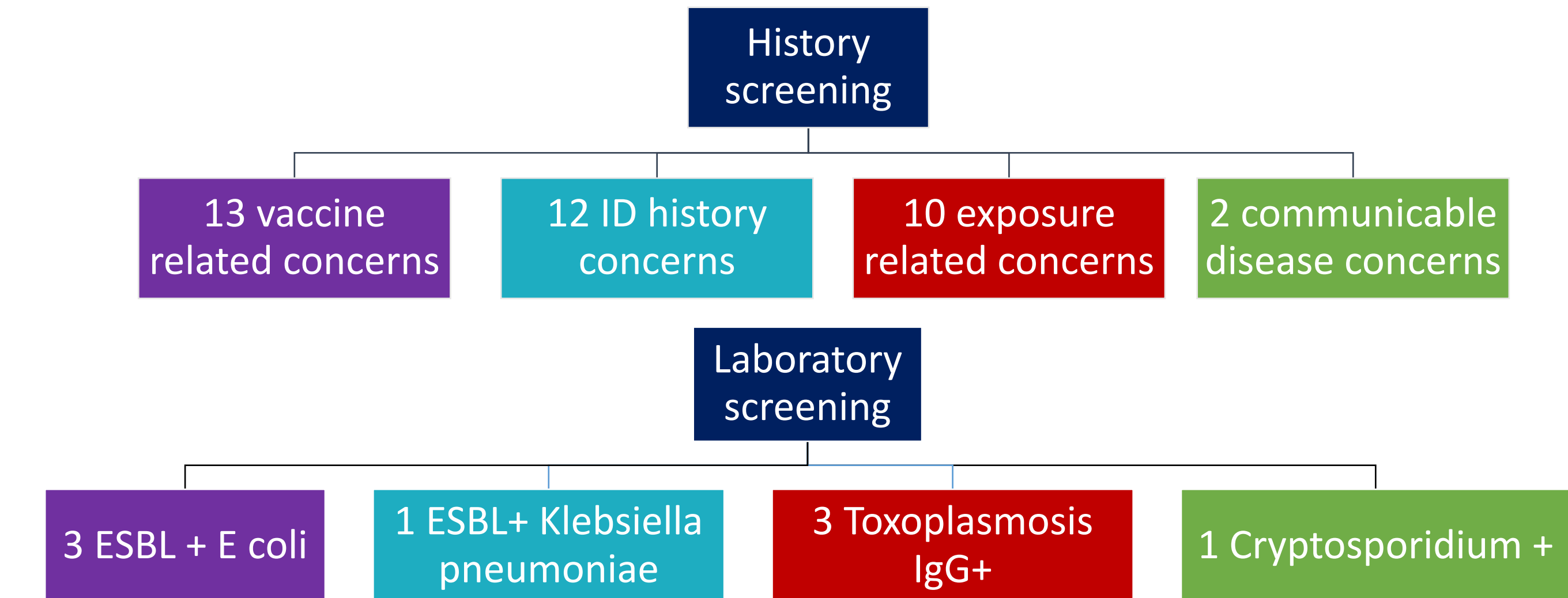


## RESULTS

Was there a demonstrated need for GAPP?

Demographics (March 21-2019-May 2, 2022)		
Diagnosis		n (%)
	Hematologic	23 (66)
	Solid	8 (23)
	CNS	3 (9)
	Other	1 (3)
Went to transplant		
	Allogeneic	7 (20)
	Autologous	1 (3)
Region		
	Latin America	20 (57)
	Eastern Europe	10 (29)
	Other	5 (14)

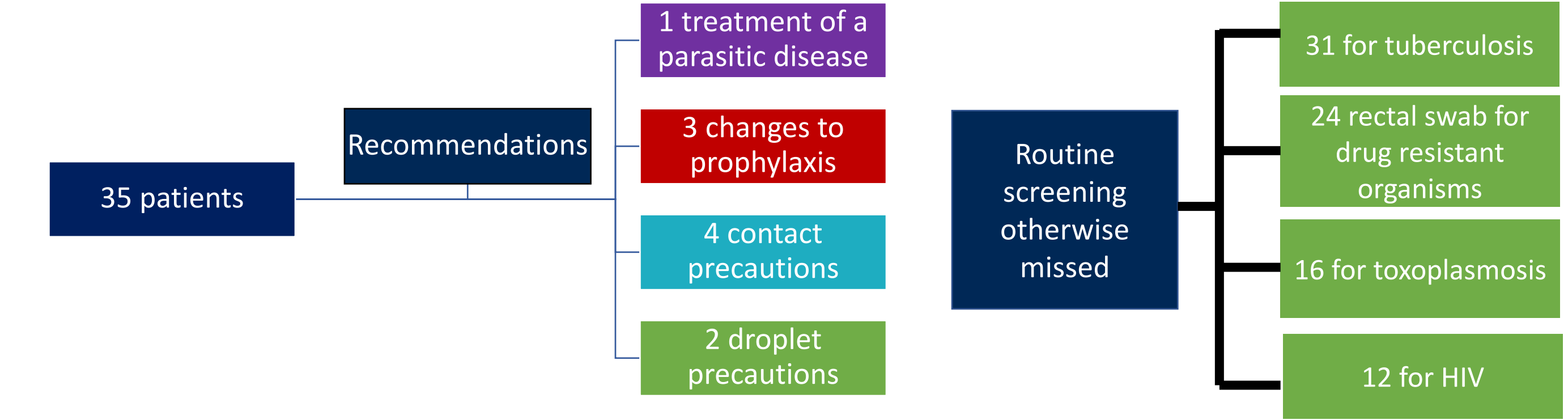
Did GAPP reveal new information that could affect clinical decision making?



- Implementation delayed by COVID-19 pandemic due to decreased volumes of patients meeting inclusion criteria
  - 11 additional patients staffed in the last 5 months
- Process measures
  - 29/35 (83%) of consults completed within 2 weeks of arrival to St. Jude Children's Research Hospital

## RESULTS

Did GAPP change patient management?



Complications after GAPP evaluation	Number of cases	Notes
E. coli bacteremia	3	2 ESBL +
K. Pneumoniae bacteremia	2	
ESBL E. coli colonization (after arrival)	2	
Mortality	4	2 attributed to infection

## FUTURE DIRECTIONS

- Inclusion of pretreated patients
- Screening protocols for patients with different needs and hospital use patterns:
  - Hematology
  - Surgery
  - Radiation oncology
- Collecting balancing measures:
  - Clinic and patient satisfaction assessments
  - Costs of screening tests with few if any positive results

## CONCLUSIONS

Screening new arrivals to the US prior to administration of immunosuppressive therapy is feasible and may identify:

- Risk factors for illness during therapy
- Opportunities for infection prevention
- Opportunities for immunization
- Opportunities for treatment or suppression of existing infections

Providers focusing on acute hematologic or oncologic illness may otherwise miss a quality improvement opportunity in a patient group at high risk of poor infectious outcomes.