Barbados: Pediatric cancer care organisation, outcomes and health care challenges
1. Epidemiological Situation of Pediatric Cancer
2. Health policy on Childhood Cancer
3. Health system and Childhood Cancer
4. Gaps and Challenges to Improve Childhood Cancer
5. Stakeholders for Childhood Cancer care
6. Needed Support for establishing a childhood cancer program
7. Conclusions
Facts

- Geographic location: 13°10' N, 59°32' W
- Size: 430 km², 97 km coastline
- Population size: 291,495 (July 2016 est.); 0-14 years: 18.13% (male 26,421/female 26,434), 15-24 years: 13.03% (male 18,888/female 19,083) (2016 est.)
- Ethnicity: Black 92.4%, white 2.7%, mixed 3.1%, East Indian 1.3%, other 0.2%, unspecified 0.2% (2010 est.)
- 11.8 births/1,000 population (2016 est.); population growth 0.3% (est)

Health

- Expenditure: 7.5% of GDP (2014) (104)
- Physician density: 1.81 physicians/1,000 population (2005)
- Hospital bed density: 6.2 beds/1,000 population (2012)
Epidemiological Situation of Pediatric Cancer in Barbados

Data from Registry: January 2012-August 2016

- **Incidence**: 16 cases per 100,000 population; age range 6-16 years, median 11 years, M:F =1.1:1

- **Most common cancers**: Leukemias 42%, Lymphomas 10.5% and CNS tumors 5%.

- **Adverse Events**: Relapse rate 40%, Progressive disease 13%, Death 27%, abandonment 7%

- **Mortality rate**: 4 cases per 100,000 population

- 2 year overall survival rate: 69%, 1985-1989: 34%
Health policy on childhood cancer

- Socialised medicine
- Cancer care 100% Government funded
- Full access to all Barbadian children
- Limitations:
  - Diagnostics limited in public sector
  - Erratic Drug availability and the National Formulary list is limited
- Medical aids scheme very limited
- Private charities—some assistance
- No real recognition as a chronic non-communicable disease
Health System and Childhood Cancer in Barbados

Quality of the services of Childhood cancer currently

- 1 Pediatric hematologist/Oncologist; Co-managed with general pediatricians
- 1 Pediatric surgeon, Pediatric Intensivist and cardiologist
- Hemopathologist on staff
- Interventional Radiologist but not pediatric trained - Port placement and biopsies
- PICU care; 2 Dedicated ‘isolation rooms’

Limitations to early detection and treatment?

- Training of primary care physicians are needed for early recognition
- Smoother transition in the referral process
- Pathology services are deficient
- Radiotherapy services are deficient; no LINAC
- MRI private
Health System and Childhood Cancer in Barbados

Healthcare professionals in training

- Pediatric hematologist/oncologist in training
- 3 Nurses to be trained in Pediatric oncology
- All training currently done overseas

Needed

- Child psychologist/Counsellor
- Pediatric pathologist
- Social worker
- Palliative care specialists
- Community Nurse
## SWOT analysis of Childhood Cancer care in Barbados

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• Trained and In-Training health care professional specialists</td>
<td>• Delay in referral time</td>
</tr>
<tr>
<td>• Hemopathologist on staff</td>
<td>• Delay in time to treatment</td>
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<tr>
<td>• Establishment of Registry</td>
<td>• Access to drugs in a timely manner, LINAC</td>
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<td>• Teleconference case discussions</td>
<td>• Supportive care in terms of lab and blood product availability</td>
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<tr>
<td>• Working protocols for the region</td>
<td>• Small numbers</td>
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<tr>
<td>• Small numbers but intensive management – ICU support</td>
<td>• Lack of psychosocial support</td>
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<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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</thead>
<tbody>
<tr>
<td>• Recognition and higher priorities by Health authorities</td>
<td>• Better awareness in Primary health system</td>
</tr>
<tr>
<td>• Enhance awareness</td>
<td>• Economics</td>
</tr>
<tr>
<td>• Building capacity in terms of diagnostics</td>
<td>• Small number but labor intensive, competing with more common NCDs</td>
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<tr>
<td>• Building of multidisciplinary team</td>
<td>• Timely access to drugs</td>
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<tr>
<td>• Strengthing supportive care</td>
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Stakeholders for Childhood Cancer Care in Barbados

Major stakeholders for childhood cancer with on-going collaboration

• Sickkids Caribbean Initiative (SCI)
• Children’s charities

Roles in the establishment of childhood cancer programs

SCI

Networking
Capacity building
• Starting of a Registry
• Pediatric Oncologist fellow training
• Nursing training in Pediatric Oncology
• Telemedicine facilities
• Training of Lab technologists
• Development of guidelines and protocols

Charities

• Financial support
• Emotional support
Needed Support for establishing a childhood cancer program

- Advocacy within the region

- Regional Collaboration in making good healthcare standards similar within the region and in Drug Procurement

- Economics
Expected outcomes from this meeting and from the work of the childhood cancer group

- Recognition of our shortfalls and assistance in improving this
- Voices together in the fight
- Goal of improvement of cancer survival
- Development of possible Twinning programs
- Optimisation of resources
- Assistance with research and continued training
Conclusions

- No change in incidence of Pediatric cancer in Barbados
- Improvement of survival rate over 2 decades from 34% to 60%
- **Positives**: Registry, access to all to free health care, specialist in the field, positive collaboration with SCI, strong charity support
- **Negatives**: Shortfalls in diagnostic and some therapeutic measures, difficulty with drug procurement, very limited psychosocial support
- **Future**: Advocacy for awareness and financial aid for comprehensive childhood cancer care, Continued capacity building in training, diagnostics and therapeutics, Possible twinning capabilities
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