

One Step Closer



Key Points of the High Level Framework Brief for
Ireland's New National Paediatric Hospital
October 2007

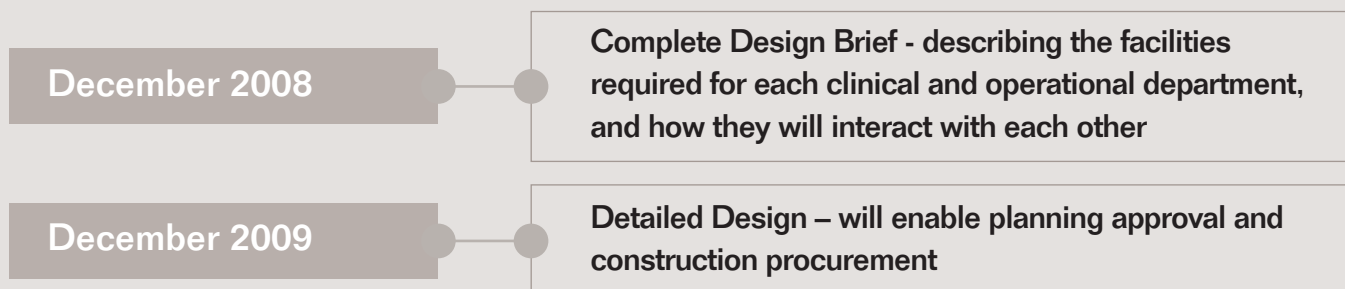


Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

The Road to the National Paediatric Hospital



Planned Next Steps



Background

After many years of planning, the development of a world-class health care system for children and families in Ireland has moved one step closer.

Following completion of the High Level Framework Brief, work can now begin on the design of the new National Paediatric Hospital that will replace the three existing children's hospitals; the National Children's Hospital, Tallaght, Our Lady's Children's Hospital, Crumlin and the Children's University Hospital, Temple Street.

First Step – What do children need?

In 2005, the HSE commissioned McKinsey and Company to undertake a study of international best practice in tertiary (specialist) hospital-based paediatric services for Ireland.

Its report Children's Health First was published in February 2006 and concluded that Ireland, because of our population size, could only support one specialist paediatric hospital. The report highlighted the benefits of concentrating national paediatric tertiary services and secondary services for Dublin in one location. This is because a hospital that sees higher numbers of cases, with a critical mass of sub specialities, delivers significantly improved outcomes for children as well as a better environment for children, their families and staff.

Of the paediatric services across the world McKinsey examined, 15 of the 17 were co-located with an adult teaching hospital.

To ensure that it had the critical mass of patients and activity, McKinsey recommended that the hospital should be located beside an adult teaching hospital, provide secondary paediatric services for greater Dublin and be part of a national and city-wide integrated service.

Next Step – Where will the hospital be built?

Following detailed consideration of all the options available, and wide consultation with all stakeholders, including the children's hospitals, a Joint HSE / Department of Health and Children Group recommended that the National Paediatric Hospital should be built on a site on the campus of the Mater Hospital in Dublin.

Framework Brief & Development Board

Following the decision on location, the next steps included the establishment of a Development Board and development of a High Level Framework Brief for the new hospital. The Development Board was established as an independent entity by Statutory Instrument in May 2007. The Framework Brief is now complete and issued to the Development Board. The Brief will act as a useful guide to its work in planning, designing, building and equipping the new Hospital.

The Brief is available to read online at www.hse.ie, and this document is designed to summarise the key points contained within.

What is the High Level Framework Brief?

The High Level Framework puts forward proposals on:

- How Ireland could deliver a world-class health care system for children and families
- The concept of ambulatory/ urgent care centres and the range of services they should provide
- The relationship between the different services at the new hospital and how they would link together
- The overall space required, and how floors, theatres, services and rooms could be arranged
- The potential for the development of a maternity hospital and interaction between the paediatric, maternity and adult services. A review of maternity services is underway and the Brief included consideration of the development of a maternity hospital in tandem with the paediatric Hospital.



Artist's impression of a Children's Hospital on Eccles Street.

Consultation

Consultation during the preparation of the Brief was extensive. It included over 250 one-to-one and group meetings, in addition to a number of written submissions.

It involved engagement with:

- Staff and management of the three children's hospitals
- Professional organisations and academic partners
- Interest groups

A panel of international clinical advisors from children's hospitals in Toronto, Philadelphia and Manchester also gave generously of their experience during the preparation of the report.

The highlights of the framework brief were presented and discussed with representatives of the three children's hospitals and other stakeholders at workshops on June 28th and 29th 2007. The international advisors, which included an internationally renowned architectural advisor, participated in person in all of these workshops.

The authors of the Brief met with organisations which speak on behalf of parents, such as Children in Hospital in Ireland and the New Crumlin Hospital Group.

It has been recommended that direct consultation with children and parents should occur at the next stage of the project. The Office of the Minister for Children and the Children's Ombudsman have well developed models for engagement with children and young people and may wish to be involved in this process.



The following includes some of the groups and individuals consulted with:

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|--|--|---------------------------------------|
| ➔ Children in Hospital Ireland | ➔ Brainwave, The Irish Epilepsy Organisation | ➔ National Maternity Hospital |
| ➔ New Crumlin Hospital Group | ➔ Conway Institute | ➔ The Rotunda Hospital |
| ➔ The Cystic Fibrosis Association of Ireland | ➔ Faculty of Paediatrics | ➔ The Coombe Women's Hospital |
| ➔ The Children's Medical & Research Foundation | ➔ Heart Children Ireland | ➔ Chair EAG Children and Families |
| ➔ Disability Federation of Ireland | ➔ Irish Kidney Association | ➔ Hospice Foundation |
| ➔ Office of the Minister for Children | ➔ Dept. of Education, School, Crumlin Hospital | ➔ UCHG Hon Sec IAEM |
| ➔ Intensive Care Society of Ireland | ➔ Dept. of Education, School, Temple Street | ➔ Mater Hospital |
| ➔ Bodywhys | ➔ Council of Deans of Facilities with Medical Schools in Ireland | ➔ Beaumont Cochlear Implant Programme |
| ➔ Irish Association for Spina Bifida & Hydrocephalus | ➔ Joint Standing Committee, Maternity Hospitals | ➔ Beaumont Paediatric Neurosurgery |
| ➔ Neonatal Sub Committee | ➔ Jack & Jill Foundation | ➔ SAHRU, Trinity College |
| ➔ Ombudsman for Children | ➔ Patient Focus Group | ➔ Dublin City Council |
| ➔ CanTeen | ➔ Ronald McDonald RMCC Ireland | ➔ Rail Procurement Agency |
| ➔ Cleft Lip and Palate Association of Ireland | ➔ Irish Assoc. of Children's Nurses | ➔ HSE, Social Inclusion |
| | | ➔ HSE METR Committee |
| | | ➔ HSE, Pre Hospital Emergency Care |

“There are no long scary corridors’ ‘This is a hospital that doesn’t feel like a hospital.”

Quotes from Children at the recently commissioned
Evelina Children's Hospital, London

The Model of Care

“Great health professionals do not make great healthcare. Great healthcare professionals interacting well with all the other elements of the healthcare system make great Healthcare.”

Donald Berwick, quoted in the Royal College of Paediatrics and Child Health ‘Guide to Understanding Pathways and Centralising Networks’

A National Paediatric Network

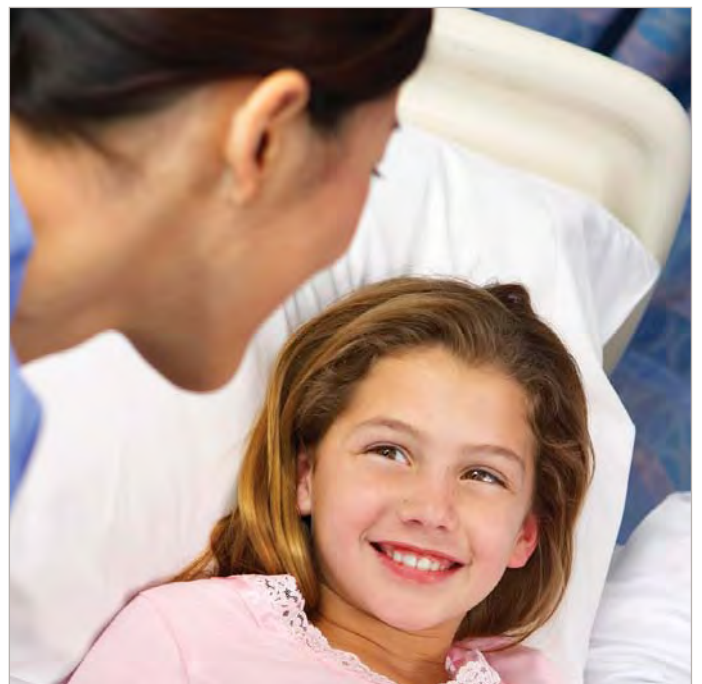
The model of care recommended places the child at the centre of an integrated and balanced network of high quality services.

The National Paediatric Hospital will be the keystone of a national paediatric network, linked to regional and local hospitals, and to primary care and community services, by outreach, telemedicine, joint appointments and staff rotation.

Operating in concert, the various elements of this network will deliver a comprehensive health and hospital system for children, providing safe care as locally as possible, and clearly defined roles for its local, regional and specialist elements.

Key features of the recommended Model of Care

- ⊕ Integration of the three children’s hospitals to create a service greater than the sum of its parts
- ⊕ Ambulatory and urgent care centres providing local access to care in Dublin
- ⊕ A Specialist Centre which promotes the effective use of expertise and resources
- ⊕ Flexibility - allowing for future expansion and changes in service models
- ⊕ A major academic centre.



The Hospital

“Our studies of the recommended site indicate that the NPH can be established there in a building that is clinically functional, patient and family friendly, flexible, a sound partner to other components of the Mater Hospital – an asset to the surrounding community”

Ken Schwartz, Healthcare Design Specialist,
NBBJ Architecture and Design

The Brief considered the demand for care that the hospital and the ambulatory and urgent care centres would need to meet and the facilities that would be needed to meet this demand.

Hospital Beds

To decide on the numbers and types of beds required, the bed projections made in Children’s Health First were reviewed and updated. Taking into account demographic changes, the enhanced performances that are expected to stem from the health transformation programme, and targeted investment, the total projected bed requirement for the hospital to 2021 ranges between 352 and 454 beds. The estimated space requirements for the hospital has been calculated based on the upper range of bed numbers.

Bed Types

The Brief recommends that the National Paediatric Hospital should plan for all single ensuite rooms. A range of room sizes have been considered and possible layouts suggested. Rooms should be designed to include space for parents or guardians to stay overnight with their child.

Family Friendly Facilities

Accommodation for parents and families is an essential component of the service provision and will be an integral part of the development of the new National Paediatric Hospital. These will include facilities ranging from bedside accommodation for parents/guardians in all rooms, as well as separate home-from-home family accommodation.



Examples of typical single bedrooms



Provision of play areas

Play Areas

Play is an important part of the child's care and recovery as well as being something that is normal and familiar which helps children adjust to what is a potentially stressful experience. In addition to the play facilities on wards and departments, a central play centre is recommended for patients and their siblings. A family resource centre will provide a range of support services and facilities.

Operating theatres and procedure rooms

The total projected number of procedures in 2021 is 13,150 inpatient cases and 17,050 day cases. This generates a requirement of 20 theatres and procedure rooms.

Imaging

Projected future imaging requirements have been set at 26 rooms, and the new hospital should also incorporate imaging facilities, e.g. MRI, into operating theatres.

Critical Care

The critical care unit should include paediatric intensive care, high dependency care, neonatal care and cardiac intensive care. These services should be grouped together in a common environment.

Education Training and Research

The National Paediatric Hospital should be the lead centre for paediatric education, training and research in Ireland. The bringing together of the three children's hospitals, each with its own research tradition, provides the opportunity to determine the future model for research, building on the best of current practice and informed by international experience.

It should have a key role in generating the workforce which it, and other paediatric services require, and creating the intellectual environment which will help to attract, retain and develop high quality staff across all disciplines.



Surgery Theatre showing inbuilt diagnostic systems which should be a feature of the New Paediatric Hospital



Typical Operating theatre with built in MRI

Shared Services

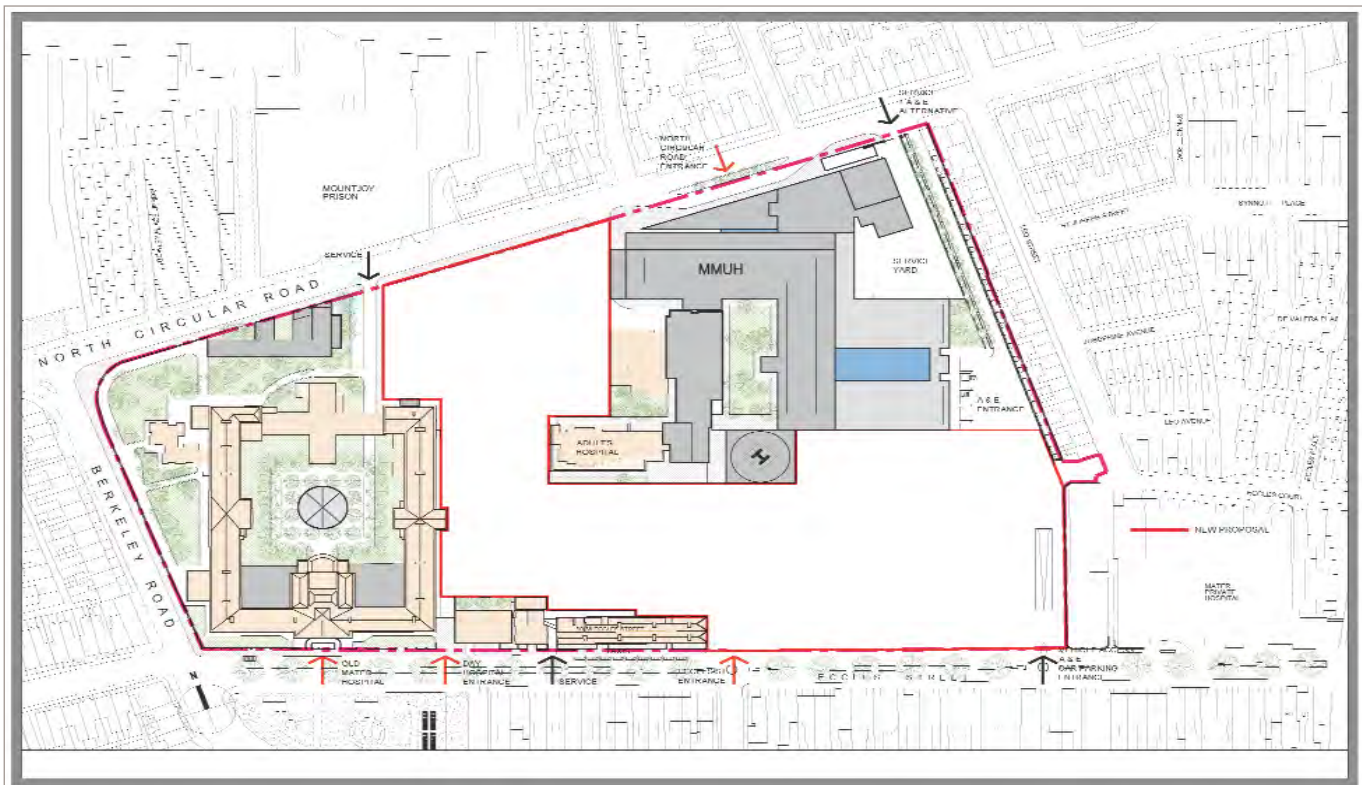
The Framework Brief details a range of opportunities that will arise to share services with the adult hospital and with a potential maternity hospital, including back-of house services and clinical and non-clinical support services.

Hospital Size and Site analysis

The overall space requirement recommended for core services at the National Paediatric Hospital is 90,200 m². When services including education and training and research, the National Centre for Medical Genetics and Parents Accommodation are added the total requirement is 103,600 m². The three existing paediatric hospitals have a combined area of under 60,000 m².

Should a decision be made to incorporate a Maternity Hospital onto the site, this would require an allowance of 15,000 m² – so the total space required for every possible requirement is 118,600 m². The chosen site at the Mater offers a development area of a minimum 140,000 m².

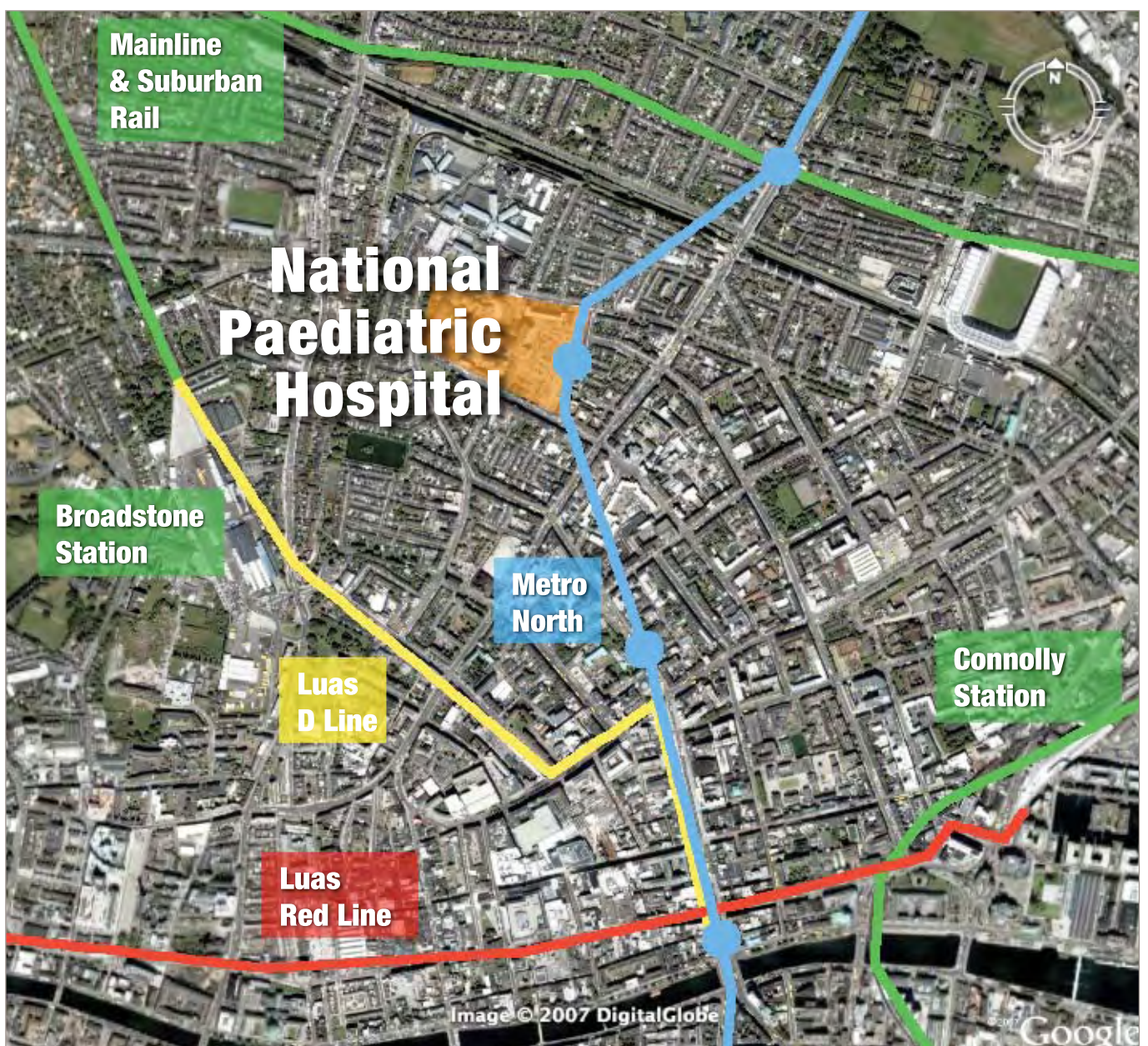
The Brief examined the capacity of the Mater Site to accommodate the space requirements of the National Paediatric Hospital and a maternity hospital, to meet expected demand up to the year 2021. The analysis indicates that all the requirements can be accommodated on the site, and still allow expansion capacity of almost 20% beyond the year 2021.






NPH site map - The white area shows the site available on the Mater Campus for the NPH and possible Maternity Hospital which is 6.15 acres

Transport and Parking

Access by public and private transport for patients was a major consideration in the process to select the Mater Campus as the site for the NPH.



Current and proposed public transport access

-  Yellow & Red Lines = Luas
-  Blue Line = Metro
-  Green Line = Mainline and Suburban Rail

The Small Area Health Research Unit (SAHRU) in Trinity College Dublin carried out an independent analysis of accessibility to each of the short listed Dublin teaching hospitals; Mater, St James Hospital and Beaumont. This study concluded that, among other criteria, the Mater Hospital offered advantages over other locations in terms of ease of access for patients by public and private transport means.

Its accessibility has been further enhanced by the decision to direct the new Metro line through the Mater campus, and Iarnród Éireann's decision to reopen the Broadstone station (close to the Mater site) which will connect with the Maynooth line and will be connected to Luas by 2012.

While these public transport facilities will not be advantageous for sick children travelling to the hospital, their availability and the direct links to the city transport system and national rail link will make access for staff and visitors significantly easier and reduce their dependence on travelling by car.

The National Paediatric Hospital will incorporate an underground car park and the ultimate size of this car park will be a matter for the Development Board but it is expected that the site could accommodate 1800 car parking spaces.



Emergency and Urgent Care

The Framework Brief has recommended that consideration be given to establishing a network of Ambulatory and Urgent Care Centres (A/UCCs) which would be operated and staffed by the National Paediatric Hospital and provide the same quality of care as the main hospital. An ambulatory care centre could be located in the NPH to serve the local population along with one located away from the main hospital. They could provide urgent care consultations, outpatient appointments, day surgery, medical evaluation and chemotherapy.

Apart from being able to provide services closer to people's homes, they provide opportunities to link with community and primary care services and develop local expertise. They also provide GPs greater access to diagnostics and enable multi-disciplinary exchange.

Examples of services which could be provided at the Ambulatory and Urgent Care Centres:

Examples of conditions treated as Urgent Care

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| ⊕ Allergic reactions | ⊕ Dehydration | ⊕ Small animal bites |
| ⊕ Asthma | ⊕ Diarrhoea | ⊕ Sprains |
| ⊕ Broken Bones | ⊕ Ear aches and infections | ⊕ Sore throats |
| ⊕ Burns (minor) | ⊕ Fever | ⊕ Stomach aches |
| ⊕ Cuts (minor) | ⊕ Infected insect bites | ⊕ Vomiting |
| ⊕ Coughing | ⊕ Rashes and bumps | |



Typical critical care unit



Examples of Outpatient services

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|-------------------------|------------------------|-------------------------------|
| ➔ Consultant clinics | ➔ Audiology | ➔ Physiotherapy |
| ➔ Nurse led clinics | ➔ Ophthalmology (eyes) | ➔ Speech and Language Therapy |
| ➔ Child development | ➔ X-ray | ➔ Psychology and psychiatry |
| ➔ Community paediatrics | ➔ Blood tests | |

Examples of Day Case procedures

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|----------------------|---------------------------|----------------------------------|
| ➔ Fracture reduction | ➔ Biopsy | ➔ Ingrown Toenail |
| ➔ Suture removal | ➔ Hernia Repair | ➔ Examinations under anaesthesia |
| ➔ Circumcision | ➔ Removal of skin lesions | |

Specialist paediatric hospitals worldwide have successfully introduced ambulatory and urgent care to both free-standing children's hospitals and to adult hospital sites.

RKW considered a number of potential locations using the following criteria: access and travel times, critical mass, staffing implications and available infrastructure.

The Brief has recommended that the first Ambulatory and Urgent Care Centre be developed at Tallaght Hospital. Depending on the level of activity and demand at the Tallaght Centre, it may be followed by another consultant-led centre at Connolly Hospital, Blanchardstown at a later phase.

Similarly, based on an evaluation of the first, and taking into account the demand and capacity issues, the potential also exists for a facility at Loughlinstown.



In Conclusion

The High Level Framework Brief sets out the key principles to inform the next stage in the development of the National Paediatric Hospital. It sets out the Model of Care, and how it could be further developed in concert with the existing paediatric clinicians in Ireland, with hospital management, staff, patients and their families.

It sets out the possible bed, facility and space requirements for the hospital, and has confirmed that the site identified at the Mater can accommodate those requirements. It has examined a range of options around shared services with Adult and Maternity Hospitals, and shown how sharing of physical and human resources can be beneficial for all these inter-related services.

It has brought us **One Step Closer** to the creation of a world class hospital network for children and families in Ireland, and to providing a centre of clinical excellence in which our dedicated healthcare staff can work and develop.



