HEALTH POLICY: CO-LOCATION.

IN THE MATTER OF AN APPLICATION TO
AN BORD PLEANÁLA
FOR PERMISSION FOR
STRATEGIC INFRASTRUCTURE DEVELOPMENT
(THE CHILDREN'S HOSPITAL OF IRELAND)

ABP Reg. No. PL29N.PA0024

AND IN THE MATTER OF AN ORAL HEARING

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Statement of Evidence of John Cole

On the subject of Health Policy I: Co-Location

## Qualifications and Experience

My name is John Senan Cole. I am a chartered architect and hold a Bachelor of Science degree in Architecture (1973) together with a Diploma in Advanced Architectural Studies (1975) both from Queen's University Belfast. Additionally I have a Master of Science Degree in Project Management (1989) from Reading University. I have subsequently acted as visiting lecturer and external examiner at these institutions.

I am a member of the Royal Institute of British Architects and a Fellow of the Institute of Hospital Engineers and Estate Managers. I am a Past President of the Royal Society of Ulster Architects and sat for 12 years as a Member of Council of the Royal Institute of British Architects. I was founding Chairman of the Construction Industry Group for Northern Ireland and of the College of Professional Bodies.

I am currently in my fourth year as Chairman of the European Health Property Network, an organisation of European countries which promotes the development and sharing of knowledge and best practice in relation to the strategic planning and development of health infrastructure throughout Europe and at a wider international level. The organisation also provides access to input from experts in the field for both member countries and others seeking our support.

I am frequently asked to contribute to publications and have presented papers to many international conferences around the world on health planning issues.

I have been Deputy Secretary and Chief Estates Officer in the Department of Health and Social Services in Northern Ireland for 4 years with overall responsibility for all capital expenditure, strategic planning of health infrastructure, policy development and standards relating to estate development and estate and facilities management, business case approval, procurement of design and construction services, project management and implementation of all major capital projects. Previous to this I was Chief Executive of Health Estates Agency for a number of years. For the last 20 years of my career I have had major personal involvement in the strategic direction, planning and delivery of a wide range of major new and redevelopment hospital

projects. I have also regularly acted as a strategic adviser to a number of UK Health organisations on similar issues.

My current role requires an in-depth knowledge of and involvement in the strategic development and implementation of many major health infrastructure projects. Examples of a few of the larger projects that are as we speak either in design or under construction for which I and my team are responsible include:

- the £260m new Enniskillen Hospital,
- the £190m phase of a £300m redevelopment of the Ulster hospital in Dundonald.
- the new Cancer Centre at Altnagelvin Hospital, Londonderry
- and perhaps of most relevance the soon-to- complete £200m development at
  the Royal Hospital in Belfast of a Regional Trauma and Critical Care Centre
  co-located and physically joined to the first phase of a Regional Maternity
  Hospital to which it is intended to add a further £200m phase providing a new
  Regional Children's hospital for Northern Ireland (also to be directly physically
  linked to the Regional Maternity Hospital).

## Strategic Planning Issues re Tertiary Paediatric Facilities

I have been asked to appear at this hearing to address primarily the issue of the planned co-location and potential tri-location of the National Paediatric Hospital with the Acute Hospital facility on the Mater Hospital Campus and potentially with a new Maternity Hospital also to be constructed on the site and to consider to what degree this approach reflects current thinking and best practice. I do not intend to provide a critique of the current design proposals but rather I would propose to examine the



wider strategic issues relating to the advantages or otherwise of the close location of the major facilities proposed for the site.

In the planning of any major health facility, particularly those that undertake a tertiary or regional role, the objective of strategists and planners, like myself, is to provide the optimum configuration of services that will deliver the highest quality patient outcomes in a manner which is focused on the patients' needs, facilitates the development of excellence and is sustainable in terms of critical mass, patient safety, ability to attract high quality staff, affordability and accessibility.

A major element of such deliberations is an analysis of the key clinical linkages that will support the achievement of this overall objective. The subsequent physical delivery of any such linkages should, as a general principle, not be determined by considering as to what extent the existing configuration, content or constraints of any particular site can facilitate them, rather they should be set out as prioritised objectives which are required to be met in any acceptable solution.

In relation to the issue of co-location or tri-location of Paediatric Hospitals with Acute and Maternity Facilities, evidence from around the world suggests that increasingly this concept has become recognised as best practice and its realisation is the basis for the planning of most regional Paediatric and Maternity Hospitals in developed countries. Those very limited cases, where co-location has not been pursued as a fundamental planning principle, have usually tended to happen where there has been a strong historical and sometimes sentimental attachment to a particular site.

In my opinion, it would be erroneous for any organisation planning a major paediatric centre from first principles not to consider the very significant benefits for patient outcomes that co-location with acute and maternity services offers.

The co-location of a regional tertiary paediatric centre with an adult teaching hospital addresses the needs of specialities, and increasingly sub-specialities, that do not have simple, clearly defined boundaries in terms of the application of skills and expertise to adults as opposed to children. It must be recognised that most international paediatric facilities have a patient age profile ranging from zero to 16

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and that there is the need for significant replication of clinical knowledge and practice within specialisms, particularly for patients closer to the higher age limit. Effectively all specialisms can benefit from the greater potential for the knowledge sharing, staff interchange and collaboration opportunities that co-location offers; some obvious examples are cardiac surgery, neurosurgery and transplant surgery but it's no less true in areas such as haematology or immunology.

The need for increased integration and communication between the groups of clinical and other staff in adult and paediatric centres is evidenced by the ever increasing range of sub-specialisms that can only be sustainable, effective and affordable if they have the critical mass of demand and resource necessary to become a centre of excellence and clinical research. Individual institutions, particularly stand alone paediatric and maternity hospitals, will frequently struggle to meet this critical mass.

Clinical excellence and greater efficiency in operation can be achieved by optimising, as appropriate, the integration and sharing of expertise, facilities and services between the three types of facility. With the availability of ever-changing medical technology and practice, which frequently requires highly expensive equipment, particularly related to the on-going growth of interventional radiology, it is increasingly essential that the concept of optimisation and sharing of facilities is adopted to help ensure the accessibility of these services to all patients and patient groups. Children will in most cases benefit equally from access to technologies that may only be viable from a staffing, expertise and resource perspective as a result of the critical mass that a large acute facility can deliver.

At a more basic level there is the potential for very significant efficiencies in the effective integration of administrative and ancillary accommodation and services between facilities to eliminate unnecessary replication and the related capital and revenue expenditure. The ability to share such facilities as Centralised Sterile Supplies, Pharmacy, Laboratory, Catering, Stores, Medical Gases, Energy Centres, Education Facilities, Security and IT Systems, Estates Departments etc. offer real potential for greater efficiency.

Of course the primary focus of decision-making in these areas should always be on seeking to achieve high quality patient outcomes. It is widely recognised within the sector that optimum care for mothers to be, yet-to-be born babies and recently born babies presenting with complex problems is achieved by aligning the condition with ready access to the most highly developed and relevant obstetric, neo-natal, paediatric and acute clinical expertise. The complete range of skills required for such situations, because they may not occur with huge frequency, is generally not available or affordable within any one facility and dealing with such cases relies on the effective integration and application of these skills from across the different facility types. The linkages are Maternity Neo-natal to Paediatric – protecting the neonate, Paediatric to Acute Adult – protecting the child and Maternity to Adult Acute –protecting the mother.

There are notable examples where official reports have identified the lack of the collaborative working and sharing of expertise that co-location can offer as the core reason for unacceptable levels of paediatric mortality rates. With the ever-increasing numbers of sub-specialisms that are emerging, the risk is increasing that the appropriate level of specialist expertise will not be available in stand-alone facilities.

## Reports/Studies

The Report of the Clinical Advisory Group on Children's and Maternity Services in Glasgow (The Calder Report) produced in March 2006 states that

"it is a widely held view that children's hospitals such as those in Glasgow and Edinburgh which are remote from general hospitals have suffered because their medical staff have not enjoyed regular professional contact with colleagues in related adult disciplines to the detriment of paediatric medicine and surgery"

As evidence of the inter-dependency of facilities in providing comprehensive and appropriate care the NHS Quality Improvement Scotland Maternity Standards Guidance issued in 2005 recommended that mothers at risk of major obstetric haemorrhage, severe pre-eclampsia or with significant medical co-morbidity should deliver at a site where specialist adult medical, surgical and intensive therapy facilities are provided.

Close linkages with the acute hospital can provide essential support for mothers who require accident and emergency treatment as a result of trauma or suffer from diabetes, heart disease, liver disease, blood disease or immunological problems etc.

The policy of co-location is now almost taken for granted in terms of current thinking related to the strategic planning of health facilities. The following are a number of many examples which demonstrate this fact.

In relation to my own Department in Northern Ireland, it is stated Departmental policy that as the next phase of the on-going major development of the Royal Victoria Hospital site we will re-provide the maternity and children's hospital, which are currently housed in separate buildings on the Royal Hospital site, as a physically integrated facility that in turn will be physically linked to the acute hospital on the site. The separate identities of the facilities will be maintained whilst optimising the potential for effective integrated working and operational efficiencies.

In Scotland our colleagues are currently engaged in developing the £850m New South Glasgow Hospital Campus which when complete in 2015 will deliver what they describe as the 'gold standard' in relation to the bringing together of maternity, paediatric and adult acute services into an integrated single site model. At the same time they are currently at the early design stages of a major project to re-locate the current stand-alone Children's Hospital in Edinburgh to the site of the Royal Edinburgh Infirmary at Little France outside Edinburgh where it will be co-located with Maternity and Adult Acute, thereby also achieving their defined 'Gold Standard'.

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In the United Kingdom a very recent example of the adoption of this approach is the newly completed Children's Hospital in Brighton, which has been relocated from its historic stand-alone location to be co-located in a new building with Adult Acute and Maternity facilities.

In terms of an international perspective I have just returned from Bologna where I was chairing the European Health and Property Network's major annual conference and AGM. In light of the request to give evidence at this hearing I sought the individual views of many of the international group of experts representing the

various countries that make up the network. The response to my question was consistent, in that unless there were really exceptional circumstances, they would automatically assume that today any new or replacement paediatric hospital would not only be co-located on the same site as an adult acute facility but generally be integrated to the maximum possible and or appropriate extent. They also applied this thinking to Maternity Hospitals, in so doing however, differentiating between appropriately located midwife-led community maternity units and those facilities that dealt with the full range of consultant-led obstetrics, including high-risk mothers, which facilities they argued strongly should be co-located with adult acute and paediatric services.

A senior health planner and researcher from Norway, Mr. Asmund Myrbostad, who attended the conference, subsequently provided me with information that demonstrated that the co-location of paediatrics, maternity and adult acute services was provided for in the three major acute hospitals completed in Norway in the last ten years and will also be the case for a further hospital which is currently under construction. The hospitals were:

- The Rikshospitalet, Oslo (2001)
- St. Olav's Hospital, Trondheim (2006)
- Akershus University Hospital and (2010)
- Haukeland Sykehus, Bergen (under construction)

## Conclusion

In conclusion I would strongly support the concept of co-locating paediatric and maternity services with each other and with adult acute services primarily for optimisation of patient care but also for the ability of this arrangement to offer considerable cost and operational efficiencies. I would also confirm that currently recognised best practice in strategic health infrastructure planning would align with the principles of co-location as proposed for the new National Paediatric Hospital in Dublin.