Orientation Booklet

For student nurses on clinical placement to St. Michaels Ward who are undertaking one of the following programmes:

Bachelor of Science (Nursing) Children's & General Integrated	□
Post-Registration Children's Nursing	□
Bachelor of Science (General)	□

Student Name:

Preceptor:

PHILOSOPHY OF CARE

The staff on St. Michael's ward work as valued members of the multidisciplinary team, and are committed to providing the highest standard of care possible to each child and their family.

We respect that each child is a unique individual with specific needs.

We strive towards promotion of optimum comfort, compassion and dignity in an environment that promotes education, research and playtime too.

Children's Health Ireland at Crumlin

WELCOME TO ST MICHAEL'S WARD

Our family centred approach to care ensures that we care for children in partnership with their family. We encourage parents & carers to stay with their children as we hope to minimize anxieties associated with hospitalisation.

This booklet is intended to give you an overview of the ward and the learning opportunities that are available to you during your placement here. **St. Michael's ward** is a **20-bedded medical ward**, which provides care for children from one to eighteen years of age. We care for children with a variety of medical conditions; our main specialisms are Cystic Fibrosis, Diabetes, Haemophilia, Sickle Cell Disease, Rheumatology, Dermatology and Neurology. We have 4 designated Cystic Fibrosis suites.

St. Michaels Team:

Clinical Nurse Manager (CNM) 2 – 1 x WTE CNM2
Clinical Nurse Education Facilitator (CNEF) – x 1 WTE
Clinical Nurse Manager (CNM) 1 – Team of three, combining full CNM1 cover.

The staff on St Michael's Ward further comprises of 25 Staff Nurses, Healthcare Assistants, Household Staff, a Play Specialist, and a Ward Clerk.

Please feel free to familiarise yourself with our staff photo board where there are photos and names of the staff working on St. Michael's Ward. Our "Hello, My Name Is" badges should help you remember our names too.

The Importance of Play

Play specialist: Emma Fratangelo

Play & recreation is a fundamental part every child's development. Hospitalisation should not prevent a child from stimulation, socialisation and most importantly fun! Emma Fratangelo is our Play Specialist and she plays a vital role on St. Michaels ward. The role of a Play Specialist is to support a child's optimal development and facilitate positive coping throughout hospitalisation. This is often done through play techniques which are used for procedural support such as distraction therapy, surgical/procedural education for upcoming medical events, and the normalization of the hospital environment through developmentally appropriate bedside activities. Emma, and the play services, are available to all patients admitted to St. Michael's Ward, please contact Emma if you feel your patient would benefit from play services during their admission.

St. Michaels Ward Specialities

Cystic Fibrosis (CF)

Cystic Fibrosis is the most common serious inherited disorder amongst Caucasians occurring with a frequency of 1:4, 1 in 19 in Ireland carry the gene. Both sexes are equally affected. It is an autosomal recessive disease; the affected individual having 2 copies of a mutated cystic fibrosis gene, one inherited from each parent. Carriers have one copy of the mutated cystic fibrosis gene but each carrier status does not affect the health of that individual. The CF gene causes an abnormality in the production and function of a protein called cystic fibrosis transmembrane regulator (CFTR). This protein acts as a chloride channel regulating the flow of chloride ions, and with that, water across the cell membrane. The CFTR protein is found in many organs throughout the body including the lungs, pancreas, liver, sweat glands and reproductive tract explaining why CF is a multi-system disease.

The predominant organs affected are the lungs and pancreas. In the lungs there is normally a thin layer of fluid that lines the airways. The fluid is normally cleared continuously from the lung by the cilia along the airway. In CF, impairment of the chloride channel results in reduced fluid production and a more viscid mucus. This is not cleared effectively from the airways and this predisposes the lungs to bacterial infection. This bacterial infection results in inflammation within the lung leading to airway damage.

Over 90% of CF patients have pancreatic insufficiency. Again thick viscid secretions within the duct of the pancreatic gland lead to blockage of the ducts resulting in secondary damage to the pancreatic gland and also digestion of the pancreas. This results in deficiency of the pancreatic enzymes and bicarbonate. Patients with CF therefore are unable to digest their food, especially fats, due to the lack of digestive enzymes. They may present with problems such as failure to thrive and have large frequent offensive loose stools. Bile from the liver is produced to help fat digestion. In CF patients the bile produced by the liver tends to be thicker and in some cases can result in blockage of the bile ducts with resultant inflammation leading to liver fibrosis and cirrhosis. Cystic Fibrosis is also associated with increased amounts of sodium and chloride in sweat, the sweat test remains the most important diagnostic test for CF. (www.cfireland.ie)

Novel medication therapies such as *'Orkambi', 'Kalydeco'* and *'Kaftrio'* have made significant improvements to children with Cystic Fibrosis. Further information is available on these medications at ward level.

Team Structure: x4 Consultants, x1 ANP (Advanced Nurse Practitioner), x4 CNS' (Clinical Nurse Specialist (CF), x2 CNS' NIV.

The **CF Care Pathway** highlights the specific cares involved in looking after the child and family with cystic fibrosis. There are also specific CF suite safety check lists. There is also a **Nurse and Parent/Patient CF guide** that you can utilise for your learning:

http://olchc.ie/Children-Family/Parent-Patient-Information-leaflets/Cystic-FibrosisBooklet-for-Parents-.pdf

Diabetes

Diabetes Mellitus is a chronic condition, which occurs when the body cannot make enough insulin to meet its needs. Insulin is a hormone produced in the pancreas. Without it, sugar from the food we eat cannot be converted into the energy required to sustain life. Instead, unused sugar accumulates in the blood and spills out into the urine.

The majority of people with Diabetes develop the condition in adulthood. They can still produce some insulin, and may be able to control their diabetes by diet alone or by diet and insulin. The majority of children and adolescents with diabetes are different; they are unable to make any insulin and must take insulin daily. Insulin is administered via injection or through a pump (www.diabetes.ie). The different insulin regimes that exist are twice daily insulin (BD insulin), three times daily insulin (TDS insulin), multiple daily injections (MDI) and continuous sub cut infusion pumps. The Diabetic Ketoacidosis protocol guides the management of the child admitted with DKA. The clinical nurse specialists link in daily with any diabetic patients on the ward and are a massive learning and facilitationresource to the staff on Michael's ward. **Care** P**lan 13** reflects the care offered to the chid with diabetes

Team Structure: x2 Consultants and x4 CNS'

https://www.diabetes.ie/living-with-diabetes/child-diabetes/hse-paediatric-diabetes-resource-pack/type-1-parents-resource-pack-sept-2019/

https://www.hse.ie/eng/about/who/cspd/ncps/paediatrics-neonatology/resources/general-principles-in-the-management-of-children-with-diabetes-requiring-surgery.pdf

Haematology

Haemophilia is an inherited x-linked recessive deficiency of one of the blood clotting factors necessary for normal haemostasis.

- Factor VIII deficiency, also known as classical haemophilia or haemophilia A. Incidence 1:10,000 of the male population.
- Factor IX deficiency, also known as Christmas disease or Haemophilia B. Incidence: 1: 60,000 of the male population.
- The mechanisms of blood coagulation are complex. Tissue damage is normally healed by contracture of the injured vessels alongside accumulation of platelets at the site of injury, and formation of an insoluble fibrin matrix, which stabilises the platelet plug and seals the wound. Extra vascular substances exposed upon injury interact with circulating clotting factors, most of which are produced in the liver.

The clotting process is initiated and proceeds as a chain of events via two interconnecting systems, the intrinsic and extrinsic pathways. The coagulation cascade formed by these pathways is an amplification system. A small initial stimulus is biochemically amplified resulting in a massive, but highly focused, burst of thrombin. Thrombin rapidly converts the soluble plasma protein to fibrinogen to fibrin, and it is the fibrin that reinforces and stabilises the plug. In Haemophilia there is a deficiency of clotting factor VIII or IX a link in this chain of events is broken. Damaged blood vessels will contract and a platelet plug will be formed. This will often allow adequate haemostasis

for superficial cuts and bruises. However, with more severe bleeding the blood will take much longer to clot as the coagulation cascade is interrupted. It is a myth that people with haemophilia bleed more quickly than others.
The degree of deficiency of clotting factor is variable in haemophilia which is classified accordingly as severe, moderate or mild.

Normal Range VII/IX	50-150iu/dl
Severe Haemophilia	< 1iu/dl
Moderate	2-5iu/dl
Mild	5-20iu/dl

Resources:
https://haemophilia.ie/ https://eahad.org/ https://www.wfh.org/

Team Structure: 2 x Consultants and x4 CNS'

Care Plan 12 and P.R.I.C.E guidelines reflects the cares involved when looking after the child with haemophilia

Sickle Cell Disease

Sickle cell disease is an inherited blood disorder that affects red blood cells. People with sickle cell disease have red blood cells that contain mostly haemoglobin* S, an abnormal type of haemoglobin. Sometimes these red blood cells become sickle-shaped (crescent shaped) and have difficulty passing through small blood vessels.
When sickle-shaped cells block small blood vessels, less blood can each that part of the body. Tissue that does not receive a normal blood flow eventually becomes damaged. This is what causes the complications of sickle cell disease. There is currently no universal cure for sickle cell disease.

Haemoglobin is the main substance of the red blood cell. It helps red blood cells carry oxygen from the air in our lungs to all parts of the body. Normal red blood cells contain haemoglobin A. Haemoglobin S and Haemoglobin Care abnormal types of haemoglobin. Normal red blood cells are soft and round and can squeeze through tiny blood tubes (vessels). Normally, red blood cells live for about 120 days before new ones replace them.

People with sickle cell conditions make a different form of haemoglobin A called haemoglobin S (S stands for sickle). Red blood cells containing mostly haemoglobin S do not live as long as normal red blood cells (normally about 16 days). They also become stiff, distorted in shape and have difficulty passing through the body's small blood vessels. When sickle-shaped cells block small blood vessels, less blood can reach that part of the body. Tissue that does not receive a normal blood flow eventually becomes damaged. This is what causes the complications of sickle cell disease.

Types of Sickle Cell Disease
There are several types of sickle cell disease. The most common are: Sickle Cell Anaemia (SS), Sickle-Haemoglobin C Disease (SC), Sickle Beta-Plus Thalassemia and Sickle Beta-Zero Thalassemia.

What is Sickle Cell Trait?
Sickle Cell trait (AS) is an inherited condition in which both haemoglobin A and S are produced in the red blood cells, always more A than S. Sickle cell trait is not a type of sickle cell disease. People with sickle cell trait are generally healthy.

Inheritance
Sickle cell conditions are inherited from parents in much the same way as blood type, hair colour and texture, eye colour and other physical traits. The types of haemoglobin a person makes in the red blood cells depend upon what haemoglobin genes the person inherits from his or her parents. Like most genes, haemoglobin genes are inherited in two sets, one from each parent

Care Plan 17 and 17 B reflect the care provided to sickle cell patients on Michael's. Each child will have a daily spleen measurement carried out and documented in the spleen record chart. The sickle cell pain management protocol and guidelines are also available.

Team Structure: 1 x Consultant, x1 ANP and x1 CNS'
https://www.sicklecelldisease.org/sickle-cell-health-and-disease/types/

Rheumatology
Juvenile Arthritis (JA) is an umbrella term used to describe the many auto immune & inflammatory conditions that children can develop. Arthritis typically effects joints the word 'arth' literally means joint & 'itis' inflammation. JA can involve the eyes, skin & GI tract. In addition, there are several types of Juvenile Arthritis. The most common type is Juvenile Idiopathic Arthritis (JIA). Other Rheumatology conditions that may be seen whilst on your placement on St. Michael's Ward include Juvenile Dermatomyositis, (JDM), Lupus, Vsculitis, as well as auto-immune conditions.
(www.arthritisireland.ie)

Team Structure: 2 x Consultants, x2 ANP's and x4 CNS'

https://icanireland.ie/

Neurology
There are approximately 1 in 200 children with epilepsy in Ireland. Many people with epilepsy have their first seizure in childhood or adolescence. However, most children with epilepsy enjoy a full and active life and only some continue to have epilepsy in adulthood. Please refer to 'New Beginnings: A guide to your Childs epilepsy.'

Team Structure: 2 x Consultants, x1 ANP and x3 CNS'
Care Plan 21 reflects the care provided to neurology patients. There are seizure record charts also available to document seizure activity.

https://www.epilepsy.ie/content/epilepsy-information

Informative resource on general paediatric conditions is: https://dontforgetthebubbles.com/

The Learning Environment on St. Michael's Ward

To help you focus on your learning we have created learning objectives specific to your needs. During your placement here you will be allocated a preceptor to support and assist you to achieve these objectives. You may not always have the opportunity to work with your preceptor so a co- preceptor is assigned. If you have any personal learning objectives, please inform your preceptor / Clinical Nurse Facilitator to help meet these needs if possible.

The learning resources available on the ward include:

1. Policy and guideline folders- *intranet*
2. Children's nursing and medical notes
3. The children and their parents
4. Nursing staff and members of the multidisciplinary team
5. Intranet resources (hospital 'G' and 'H' drives)
6. Internet Resources- listed throughout
7. Paediatric Nursing journal papers
8. Textbooks: Trigg and Mohammed (2006)" Practices in Children's nursing", Guidelines for Hospital

Usual Daily Routine

This is only a brief summary of the nursing care received by the children each day. The children's specific nursing care is planned and delivered only after a careful assessment of the child's nursing needs. Continue to check patients' notes, medication kardex and link in with the nurse in charge over the shift for any changes or updates to patient care. **All students nursing notes must be countersigned.**

Morning

- ISBAR 3 Handover and summary of child's condition.
- Safety Pause and Patient Allocation (CNM will attend morning huddle)
- Safety checks*
- Assessment of each child allocated to you and your preceptor/co-preceptor PEWs assessment
- Preparation of child for investigations/procedures as requested
- Children's breakfasts
- Administration of Medications
- Children's personal cleansing and dressing needs (bath/shower dressing the children etc)
- Prepare children for hospital school (as appropriate)
- Bed making
- Complete intake and output charts (update frequently)
- Doctors rounds (nursing staff must accompany and participate)
- Prepare children for discharge (as appropriate) -**Home by 11 initiative**
- Children's lunchtime
- 12.00 Medications as prescribed

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Afternoon

- Afternoon verbal report at 12 midday to update nurses on children's care
- Reassess children's condition (as required throughout each shift, frequency pending on condition)
- Pews assessment as clinically indicated
- Intake & output charts updated
- Admissions booked for pm.
- Update nursing documentation
  (ensure same is countersigned)
- Update handover tool (desktop)

Evening

- Evaluate care given during the day and record a summary of this care, doctor's rounds and procedures requested/performed on communication sheet.
- Update care plans and evaluate same.
- Children's teas 16.00
- Complete intake and output charts
- Monitor vital signs
- Administer medications as prescribed.
- Prepare for handover to night duty staff.

General Information- Child Safety

* Safety checks must be performed at the beginning of each shift. Check environment, and that O2 and suction equipment is available and in working order, and ensure each child is wearing a correctly labelled legible name band.
* Cot sides must be used as required.
* Ensure the outer ward doors are closed to prevent children leaving the premises unattended.
* Keep kitchen door closed at all times.
* Keep treatment room door locked.
* Avoid clutter and remove unnecessary objects from floor/beds space.
* Children should wear appropriate foot wear at all times.
* Hot drinks are not permitted onto ward.
* Check water temperatures prior to bathing (elbow to check temperature) and supervise young children during bath/shower.
* Ensure use of safety straps when using equipment such as "buggies, highchairs etc.

Isolation Precautions

Patients who are in isolation will be highlighted at safety pause. Many factors contribute to the development of hospital acquired infection. A simple but effective means of preventing the spread of infection from patient to patient is hand hygiene. It is vital that we promote and safe guard patient's well-being by adhering to infection control policy and take necessary precautions.

- Aprons are worn prior to entering isolation rooms. Gloves are required if there is a risk of contact with body fluids & secretions. Aprons & gloves should be removed before leaving the isolation room. ***Please ensure there is an isolation bin outside your patient's door. ***
- Isolation rooms should contain yellow bins. If these are not present, it is your responsibility to inform household staff.
- Alcohol rub is available outside each cubicle and is used for disinfection of" clean" hands.
- PPE required for VRE+ patient's is blue gowns and gloves
- PPE required for CRE+ patients is blue gowns and gloves, wearing scrubs instead of your uniform and not having any contact with any other patient. The staff member that is caring for a child that is CRE+ must shower with 'hibiscrub' at the end of his/her shift prior to leaving the department.
- PPE required for COVID precaution/positive patients is blue gowns, extended length gloves, goggles, surgical mask (Precautions/not within 2m), FFP2/FFP3 with positive patients or aerosol generating procedures.
- Refer to CHI at Crumlin isolation policy and guidelines for specific isolation precautions.
- **Routine samples for MRSA & MDRO screening are required for each new patient admitted to St. Michael's Ward and monthly for those who are long term admissions.**

Immunisation Schedule

For most recent information, please refer to the following website:
https://www.hse.ie/eng/health/immunisation/pubinfo/pcischedule/immschedule/

The OLCHC Medication Policy 2017 also has further information on this:
https://www.olchc.ie/Healthcare-Professionals/Nursing-Practice-Guidelines/Medication-Policy-2017.pdf

Drug Calculations

What you want X volume in which it is contained
What you have

Example: Paracetamol 120mgs/5mls Dose prescribed = 180mgs

Calculation: 180mgs X 5mls = 7.5mls

PEWS- Normal range of Vital Signs

The normal range for vital signs in paediatrics vary depending on the infant's/child's age**.**

NB! Check that the age appropriate PEWS chart is in place for your patients on commencement of your shift.

There are five charts: 0-3 months 4-11 months 1-4 years 5-11 years 12+ years

While you are on clinical placement you will be 'buddied' with your preceptor/co-preceptor/a registered nurse. If you have any information to feedback regarding your patient in the first instance report it to your 'buddy' nurse, if they are not available report it to the CNM/nurse in charge.

Always handover your patient information before going on break or home to your 'buddy' nurse.

We hope you enjoy your time on St Michael's ward and gain experience which will benefit you in the future. Should you have any queries or concerns please feel free to speak to CNM/CNEF/Preceptor/CPC.

Notes

Hours of Placement (All Students)

You will be advised on how many days & weeks you must attend placement for (clinical shifts and reflective practice days) by the following:

- **Supernumerary Nursing students**: Student Allocations Liaison Officer (SALO)

- **PRCNS students**: PRCNS Co-Ordinator

Off Duty

- Your off duty will be decided by the Clinical Nurse Manager 2.
- Changes to your off duty may be facilitated but this is dependent on ward skill mix.
- Duty may be swapped between students only with prior agreement of Clinical Nurse Manager 2.
- During your placement you will be allocated a preceptor and a co-preceptor. We try as much as possible to facilitate students to work alongside your allocated preceptor so that your assessments are performed by nursing staff you have been closely linked with.

➢ **Reflective practice**: You will be facilitated to attend your mandatory reflective practice sessions in the CCNE (Children's Centre for Nurse Education) or online. Reading & unstructured reflective practice will be accommodated but must be undertaken within the department.

Absence Reporting:

If you are absent for any reason you must follow the reporting structure below:

Absence Reporting	
Supernumerary Nursing Students (1^{st}; 2^{nd}; 3^{rd} & 4^{th} yrs.)	**Rostered Student Nurses** (PRCNS & Interns)
1. Ring the Clinical Area	**1. Ring** Nursing Admin
2. Email: student.absence@olchc.ie	**2. Ring** the Clinical Area
	3. Email: PRCNS Co-Ordinator (PRCNS) / **Email:** student.absence@olchc.ie (Interns)
Please refer to the **full** guideline for further information hours, absences and returning to placement:	
➢ *Supernumerary students Guidelines on Absenteeism and Duty, Supernumerary Nursing Students BSc Nursing Children's and General -Nov. 2020*	➢ *CHI Crumlin Guideline on Duty Public Holiday Absenteeism for Rostered Stds 2021*