Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced monitoring assessment at Nenagh Hospital, Co Tipperary

Monitoring Programme for the National Standards for the Prevention and Control of Healthcare Associated Infections

Date of on-site monitoring assessment: 5 September 2013

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive continuous improvement in Ireland's health and personal social care services, monitor the safety and quality of these services and promote person-centred care for the benefit of the public.

The Authority's mandate to date extends across the quality and safety of the public, private (within its social care function) and voluntary sectors. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, the Health Information and Quality Authority has statutory responsibility for:

- **Setting Standards for Health and Social Services** – Developing person-centred standards, based on evidence and best international practice, for those health and social care services in Ireland that by law are required to be regulated by the Authority.

- **Social Services Inspectorate** – Registering and inspecting residential centres for dependent people and inspecting children detention schools, foster care services and child protection services.

- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health and personal social care services and investigating as necessary serious concerns about the health and welfare of people who use these services.

- **Health Technology Assessment** – Ensuring the best outcome for people who use our health services and best use of resources by evaluating the clinical and cost effectiveness of drugs, equipment, diagnostic techniques and health promotion activities.

- **Health Information** – Advising on the efficient and secure collection and sharing of health information, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

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1. Introduction

The Health Information and Quality Authority (the Authority or HIQA) commenced Phase 1 of the monitoring programme for the *National Standards for the Prevention and Control of Healthcare Associated Infections* (the National Standards) in the last quarter of 2012. This initially focused on announced and unannounced assessment of acute hospitals' compliance with the National Standards.

Phase 2 commenced in January 2013, and will continue throughout 2013 and into 2014 to include announced assessments at all acute hospitals in Ireland, and the National Ambulance Service.

This report sets out the findings of the unannounced monitoring assessment by the Authority of Nenagh Hospital's compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* (NSPCHCAI).

The purpose of the unannounced monitoring assessment is to assess the hygiene as experienced by patients at any given time. The unannounced assessment focuses specifically on the observation of the day-to-day delivery of hygiene services and in particular environment and equipment cleanliness and compliance with hand hygiene practice.

An unannounced on-site monitoring assessment focuses on gathering information about compliance with two of the NSPCHCAI Standards. These are:

- Standard 3: Environment and Facilities Management, Criterion 3.6
- Standard 6: Hand Hygiene, Criterion 6.1.

The Authority used hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as hand hygiene compliance. Documents and data such as hand hygiene training records are reviewed during an unannounced monitoring assessment.

The emergency department (ED) is usually the entry point for patients who require emergency and acute hospital care, with the outpatient department (OPD) the first point of contact for patients who require scheduled care. In Irish hospitals in 2011, there were over 1 million attendances at EDs and over 3 million outpatient attendances.

Accordingly, the monitoring assessment will generally commence in the ED, or in the OPD and follow a patient's journey to an inpatient ward. This provides the Authority with an opportunity to observe and assess the hygiene as experienced by the majority of patients. The Authority uses hygiene observation tools to gather information about the cleanliness of at least two clinical areas. Although specific clinical areas are assessed in detail using the hygiene observation tools, Authorised Persons from the Authority also observe general levels of cleanliness as they follow the patient journey through the hospital.

The monitoring approach taken is outlined in Appendix 1.

The unannounced assessment was carried out at Nenagh Hospital by Authorised Persons from the Authority, Catherine Connolly Gargan and Breeda Desmond, on 5 September 2013 between 08:40hrs and 13:30hrs. The Authorised Persons from HIQA commenced the monitoring assessment in the Local Injury and Medical Assessment Units as there was no Emergency Department in the hospital.

The areas subsequently assessed were:

- Medical 1 Ward (Male)
- Medical 2 Ward (Female).

The Authority would like to acknowledge the cooperation of staff with this unannounced monitoring assessment.

2. Nenagh Hospital Profile[‡]

Nenagh Hospital was officially opened on 30 September 1936 and is now part of the UL Hospitals serving the County of North Tipperary and surrounding counties. Under the Acute Medicine Programme, Nenagh's Local Emergency Centre has evolved into a Local Injuries Unit which includes the appointment of an Advanced Nurse Practitioner on 30 July 2013.

The services provided at Nenagh Hospital are appropriate for a Model 2 Hospital and delivers non-complex care as close as possible to patients' homes. Access for medical admissions is via the Medical Assessment Unit, Local Injuries Unit, direct GP admissions and transfer of patient's from the University of Limerick Hospital's Group.

Site governance on a day to day basis is provided by the Operational Director of Nursing and the Site Administrator who work with the individual Directorates within UL Hospitals to ensure the achievement of group objectives.

Bed Complement

- 49 inpatient medical beds
- 14 Surgical Day Ward beds
- 7 endoscopy beds
- 6 Medical Assessment Unit (MAU) trolleys
- 5 Local Injuries Unit (LIU) trolleys.

Services Currently Provided at Nenagh Hospital include:

- inpatient medicine
- endoscopy

[‡] The hospital profile information contained in this section has been provided to the Authority by the hospital, and has not been verified by the Authority.

- pre-op assessment
- OPD Department
- Medical Assessment Unit
- Local Injuries Unit (open seven days per week)
- Surgical Day Ward
- cardiology services including echo
- X-ray
- laboratory
- physiotherapy
- pharmacy
- respiratory services including pulmonary function testing, half and full sleep studies testing and pulmonary rehab clinics
- infusions service with gastroenterology CNS and governed by gastroenterologist
- palliative care
- diabetic services.

3. Findings

The findings of the unannounced monitoring assessment at Nenagh Hospital on 05 September 2013 are described below.

3.1 Standard 3. Environment and Facilities Management

Standard 3. Environment and Facilities Management

The physical environment, facilities and resources are developed and managed to minimise the risk of service users, staff and visitors acquiring a Healthcare Associated Infection (HCAI).

Criterion 3.6. The cleanliness of the physical environment is effectively managed and maintained according to relevant national guidelines and legislation; to protect service-user dignity and privacy and to reduce the risk of the spread of HCAIs.

Overall, the Authority found that improvements were required in the cleanliness of the environment in both areas assessed with some exceptions.

Medical 1 Ward

Environment and equipment

There was evidence of some good practice which included the following:

- Work station equipment, including telephones and keyboards was observed to be clean and free of dust, dirt and debris.
- The contents of the resuscitation trolley were secure and the surface of the trolley and emergency equipment stored on it were found to be free of dust.
- Bedrails, pillows and mattresses assessed were clean and intact.
- Blood pressure cuffs, suction equipment and intravenous pumps assessed were clean.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- Adhesive tape residue was found on bed-heads and staining was found under the metal grids on bases of some beds assessed.
- There was a sticky residue on the exterior surfaces of some patient lockers assessed.

- Protective paint was missing from parts of the base of bedside table frames assessed.
- The edges of floor covering on floors assessed in patient areas were damaged, hindering effective cleaning.
- Some wall surfaces assessed in patient areas were severely damaged with large areas of paint missing or lifting and loose. A hand hygiene sink was located beside a mostly exposed, crumbling wall surface adjacent to a patient's bed. Paper hand towels brushed against this wall each time they were removed from the dispenser.
- A moderate level of dust was found on curtain rails and reading light fixtures. Light dust was found on the top surfaces of wardrobe/locker units assessed. Moderate to heavy dust was found on high surfaces of wooden cubicle structures in the patient shower, toilet and in the 'dirty' utility[±] room areas.
- Extensive areas of missing paint was found on radiator, plumbing fixtures located at the base of walls and on the surfaces of wooden borders located between the walls and the floors throughout patient areas.
- A patient's wet face cloth was placed on a radiator.
- An electrical socket was not fixed securely to a wall in a patient area assessed.
- The ward corridor was cluttered with equipment on one side including patients' chairs, stacking chairs, a weighing chair, a hoist and an electrocardiograph (ECG) machine (used to record the electrical tracing of the heart). Six intravenous pumps and four intravenous stands were stored in a corner of a four-bedded patient area next to a patient's personal wheelchair and adjacent to a patient bed area. This finding was not in line with best practice for prevention and control of Healthcare Associated Infections.
- Bordering between the walls and floors in patient toilets and showers was found to be soiled adjacent to toilet bowls, and in disrepair and soiled in other areas.
- A single small extractor fan was in place to service both patient showers. The surfaces of the flanges of the extractor fan were covered by moderate amounts of dust.
- One of two electric ceiling lights servicing both shower cubicles was not in working order. As there was no natural light in the shower area, this finding posed a health and safety risk to patients using the area. Two sealed redundant water pipes were protruding from of a wall in one of the patient showers; this finding posed a risk of injury to patients and was not in line with best water management practice.
- A flat-mop frame was inappropriately placed on a wall mounted clamp unit behind the door to the patient toilets.
- Large areas of protective paint was missing from the surfaces of some intravenous stands and vital sign monitoring unit stands assessed, hindering effective cleaning.

[±] A 'dirty' utility room is a temporary holding area for soiled/contaminated equipment, materials or waste prior to their disposal, cleaning or treatment.

- The surface of an assessed oxygen saturation probe was unclean.
- The surface of a patient temperature monitoring device was unclean; there was also a piece of soiled redundant dressing tape in place on the surface of the device.
- There was no door fitted on the entrance to the 'dirty' utility room and it was therefore not secured to prevent access by unauthorised persons to an area where hazardous clinical waste and cleaning solution was stored. A bottle of floor cleaning solution was found on top of the sluice hopper flushing unit. An unsecured rigid hazardous waste bin containing empty blood product bags and giving sets was placed on top of a worktop. No assembly details were completed on this hazardous waste disposal bin. The 'dirty' utility room and patients' toilet area shared a common access door; the 'dirty' utility room was located in an adjacent area with open access from the patient toilet area. This finding was not in line with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.
- The edges of flooring in the 'dirty' utility were stained. Stainless steel surfaces in this area were also unclean. One of two extractor fans located in a window in the 'dirty' utility room was not functioning and connecting electric wiring was cut and hanging freely. There was light to moderate dust found on the flanges of the functioning extractor fan in place.
- There was no dedicated clean utility room. Clinical supplies and equipment were stored in an unsecured room that also functioned as a multidisciplinary work area.
- Quality improvement plans developed in response to findings of environmental audits did not include a designated responsible person and a time frame for completion.

Linen

There was evidence of some good practice which included the following:

- Disposable curtains were in use throughout the ward and were changed as necessary if soiled and as standard every four months. Each curtain was dated and was not due for changing until October 2013 as demonstrated.
- Clean linen assessed was found to be free from stains and was intact.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- Clean linen was not stored in an appropriate designated area. Linen was stored at the end of the ward in a shelved trolley closed by a polythene type flap. The trolley was stored on the ward corridor immediately outside patient rooms and adjacent to patient chairs. Although wrapped in cellophane, packs of clean linen were also stored on top of the trolley in addition to two sensor seat pads and a pressure relieving cushion.

- The Authority was informed that linen used by patients with evidence of communicable infection was placed in alginate bags inside red canvas bags. All other used linen including linen soiled with body fluids was placed in white canvas bags. This finding did not meet best practice linen management standards.

Waste segregation

There was evidence of some good practice which included the following:

- Clinical and non-clinical waste was tagged with unique identification numbers at the point of generation, facilitating tracking to source if required.
- A waste management policy was viewed by the Authority. It was approved for staff reference in June 2013 and due for review in June 2015.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- Hazardous waste was stored in the 'dirty' utility room awaiting collection as standard; this room was unsecured and fully accessible to unauthorised persons. The Authority was informed that all waste was collected twice daily from the 'dirty' utility area.
- Not all of the hazardous sharps disposal bins had completed assembly details to enable tracking to source if necessary.
- Some advisory labels placed on clinical and non-clinical waste disposal bin lids were worn and difficult to read.

Cleaning equipment

There was evidence of some good practice which included the following:

- A colour-coded cleaning and flat mopping system was in operation and was demonstrated.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- There was no cleaners' room located on the ward, and the hygiene attendants' cleaning trolley was stored under a stairs outside the ward area following removal of hazardous cleaning chemicals and solutions at the end of each day.
- A moderate amount of fluff and dust was found in the lid hinge area of the waste disposal bin located on the ward cleaning trolley.

Water outlet flushing

- The Authority found that a weekly water flushing schedule was in place for all infrequently used water outlets to reduce the risk of waterborne infection. Some water outlets were risk assessed as requiring twice weekly flushing. However, records reviewed by the Authority did not demonstrate that twice weekly flushing was completed as required.

Medical 2 Ward

Environment and equipment

There was evidence of some good practice which included the following:

- Bedrails, mattresses and patient lockers assessed were found to be clean, intact and free of dust, rust and grit.
- IV pumps, resuscitation trolley and emergency equipment, blood pressure cuffs, oxygen equipment, temperature probes and hoists were clean in both areas assessed.
- All equipment in the clinical area was found to be appropriate.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- There was dust and grit found underneath the mattress and at the edges of the metal base frames of beds assessed.
- A pillow assessed was found to be torn and the tear was covered by an adhesive sterile gauze dressing.
- The bases of patient bed tables assessed were unclean and areas of protective paint were chipped and missing.
- Adhesive tape residue was found in multiple areas on the surface of white over-bed panels housing electrical fixtures.
- Not all beds had adequate designated wardrobe space for patients' clothing. Luggage bags were found stored on the floor by patient beds, hindering effective floor cleaning.
- The floors in patient areas were found to be unclean.
- There was a moderate layer of dust in the grid area at the top of the protective radiator cover in the patient shower area.
- The ward corridor was found to be cluttered with equipment, including a specialist chair and laundry skips.
- A sticky residue was found on the surface of an intravenous pump in the nurses' station. There was a sticky residue and dust on the exterior surface of the resuscitation trolley.

- Grit and rust was found around the area over the wheels of dressing trolleys assessed.
- The base of the hoist frame was unclean.
- The Authority found moderate amounts of dust on work station surfaces.
- There was inappropriate storage of patient equipment in an unsecured electrical hub area including an artificial ventilator, crutches, covers for electrical fittings and bedrail protectors.
- Access to the clean utility room was not controlled; the door was left open permitting access by unauthorised persons. Bottles of liquid disinfectant were stored on a window ledge. An unlocked storage unit was found to contain needles, syringes and oral medications. A second storage unit contained manual handling equipment.
- While no used linen, hazardous chemicals or materials were stored in the 'dirty' utility area, the door was not secure to mitigate access by unauthorised persons.
- The floor area of the 'dirty' utility room was unclean with visible dust.
- Quality improvement plans developed in response to findings of environmental audits did not include a designated responsible person and a time frame for completion.

Linen

There was evidence of good practice in both areas assessed which included the following:

- Used linen bags were not overfilled.
- Disposable curtains were used throughout the ward, each was tagged and dated and changed as necessary and as standard every three months.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- Trolleys of clean linen supplies were stored in the same area as used linen skips. This finding was not in line with *National Standards for the Prevention and Control of Healthcare Associated Infections*.
- Some linen skips were not appropriately placed in the ward during use as they were stored in a room designated for the location of an electrical power hub unit. The Authority found that the lid elevation resulted in some linen skips touching against clean personal protective equipment dispensers.

Waste segregation

There was evidence of good practice in both areas assessed which included the following:

- A waste management policy viewed by the Authority was available, approved for staff reference in June 2013 and due for review in June 2015.
- Waste was not temporarily stored in the areas assessed awaiting collection; twice daily scheduled removal of waste from clinical and non-clinical waste disposal bins was in place. All hazardous sharps disposal bins were correctly assembled, tracking details were completed and the temporary protective closure mechanism was engaged.

Cleaning equipment

There was evidence of good practice in both areas assessed which included the following:

- All cleaning equipment used by the cleaning staff in both areas assessed by the Authority was clean. A colour-coded cleaning system was in operation and was demonstrated.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- The door to the cleaners' room was unlocked permitting access by unauthorised persons to cleaning solutions and chemicals stored on open shelving.
- The laminate surface of wooden shelving was found to be eroded, exposing the base surface.

Isolation rooms

There was evidence of good practice in both areas assessed which included the following:

- Doors to isolation rooms were maintained in a closed position throughout the monitoring assessment.
- Adequate personal protective equipment was available.
- Advisory signage was colour coded and informative.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*:

- The Authority observed some staff failing to remove personal protective equipment prior to exiting isolation rooms.

Water outlet flushing

- The Authority found that a weekly water flushing schedule was in place for all infrequently used water outlets to reduce the risk of waterborne infection. Some water outlets were risk assessed as requiring twice weekly flushing. However, records reviewed by the Authority did not demonstrate that twice weekly flushing was completed as required.

Conclusion

In conclusion, the Authority found that there was much evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* in both areas assessed but in particular in Medical 1 Ward. The environment and equipment in both areas were generally unclean, with some exceptions. There environment in Medical 1 Ward required improvement to ensure appropriate facilities were put in place to prevent risk to patients of contracting Healthcare Associated Infections, including clean utility and clean linen facilities. Therefore the environmental hygiene and equipment cleaning in both areas was not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections (HCAIs).

3.2 Standard 6. Hand Hygiene

Standard 6. Hand Hygiene

Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.

Criterion 6.1. There are evidence-based best practice policies, procedures and systems for hand hygiene practices to reduce the risk of the spread of HCAIs.

Hand hygiene

There was evidence of good practice which included the following:

- Hand hygiene soap, alcohol gel and hand towels were located within easy access to the sinks designated for hand hygiene.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- A black mould-like substance was visible on the area between the sink and the splash back surface on one of two sinks located in the shower room outside the shower cubicles.
- A small sink located outside the two toilet cubicles did not meet hand hygiene facility best practice standards. A black mould-like substance was found around the tap and between the sink and splash back surface.
- Not all clinical hand-wash sinks were compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005) and some did not have hand hygiene procedure advisory information displayed. No advisory information was displayed advising appropriate use of available surgical scrub solution versus soap.
- Not all staff were performing hand hygiene prior to donning personal protective equipment.

Observation of hand hygiene opportunities

The Authority observed 25 hand hygiene opportunities in total during the monitoring assessment. Hand hygiene opportunities observed comprised:

- six before touching a patient
- eight after touching a patient
- two before clean/aseptic technique
- three after body fluid exposure risk
- six after touching a patient's surroundings.

The Authority observed that between the two areas assessed, 22 of the total 25 hand hygiene opportunities were taken, 19 of which were observed to comply with best practice hand hygiene technique. Non-compliance with hand hygiene best practice included failure to take opportunities to perform hand hygiene, wearing of sleeves to the wrist, wearing a wrist watch and inadequate time spent performing the procedure.

Conclusion

The Authority found that there was evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections.* Some hand-wash sinks and advisory hand hygiene procedure signage in both areas assessed were not compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005). In addition, some designated hand-wash sinks were unclean. Non-compliant hand-washing facilities observed by the Authority posed a risk of spread of HCAIs to patients.The Authority's hand hygiene observations suggest that a culture of hand hygiene practice is not totally embedded among all staff.

4. Overall Conclusion

The risk of the spread of Healthcare Associated Infections is reduced when the physical environment and equipment can be readily cleaned and decontaminated. It is therefore important that the physical environment and equipment is planned, provided and maintained to maximise patient safety.

The Authority found that there was much evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* in both areas assessed but in particular in Medical 1 Ward. The environment and equipment in both areas were generally unclean, with some exceptions. The environment in Medical 1 Ward required improvement to ensure appropriate facilities were put in place to prevent risk to patients of contracting Healthcare Associated Infections (HCAIs), including clean utility and clean linen facilities. Therefore the environmental hygiene and equipment cleaning in both areas

was not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections.

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of HCAIs in healthcare services. It is essential that a culture of hand hygiene practice is embedded in every service at all levels. The Authority found that there was evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections.* Some hand-wash sinks and advisory hand hygiene procedure signage in both areas assessed were not compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005). In addition, some designated hand-wash sinks were unclean. Non-compliant hand-washing facilities observed by the Authority posed a risk of spread of HCAIs to patients.The Authority's hand hygiene observations suggest that a culture of hand hygiene practice is not totally embedded among all staff.

Nenagh Hospital must now develop a quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the *National Standards for the Prevention and Control of Healthcare Associated Infections.* This QIP must be approved by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. The QIP must be published by the Hospital on its website within six weeks of the date of publication of this report.

The Authority will continue to monitor the Hospital's QIP as well as relevant outcome measurements and key performance indicators, in order to provide assurances to the public that the Hospital is implementing and meeting the NSPCHCAI and is making quality and safety improvements that safeguard patients.

The unannounced monitoring assessment at Nenagh Hospital on 5 September 2013 was a snapshot of the hygiene levels in two areas of the Hospital at a point in time. Based on the findings of this assessment the Authority will undertake a follow-up assessment against the *National Standards for the Prevention and Control of Healthcare Associated Infections* within the next six months.

Appendix 1. NSPCHCAI Monitoring Assessment

Focus of monitoring assessment

The aim of the NSPCHCAI, together with the Health Information and Quality Authority's monitoring programme, is to contribute to the reduction and prevention of Healthcare Associated Infections (HCAIs) in order to improve the quality and safety of health services. The NSPCHCAI are available at http://www.hiqa.ie/standards/health/healthcare-associated-infections.

Unannounced monitoring process

An unannounced on-site monitoring assessment focuses on gathering information about compliance with two of the NSPCHCAI Standards. These are:

Standard 3: Environment and Facilities Management, Criterion: 3.6

Standard 6: Hand Hygiene, Criterion 6.1.

The Authorised Persons use hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as hand hygiene compliance. Documents and data such as hand hygiene training records are reviewed during an unannounced monitoring assessment.

The Authority reports its findings publicly in order to provide assurances to the public that service providers have implemented and are meeting the NSPCHCAI and are making the quality and safety improvements that prevent and control HCAIs and safeguard service users.

Please refer to the Guide document for full details of the NSPCHCAI Monitoring Programme available at http://www.hiqa.ie/publications/guide-monitoring-programme-national-standards-prevention-and-control-healthcare-associa.

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