



Hygiene Services Assessment Scheme

Assessment Report October 2007

South Infirmary Victoria University Hospital

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1.0 Executive Summary

1.1 Introduction

This is the first National Hygiene Services Assessment Scheme (HSAS). It is a mandatory scheme for all acute hospitals. The scheme aims to enhance cultural change in the area of hygiene services by not only focusing on the service delivery elements but also emphasising the importance of standards for corporate management. The HSAS is a patient-centred scheme which assists a hospital to prioritise the key areas in hygiene to be addressed. It is intended to promote a culture of best practice and continuous quality improvement.

The Irish Health Services Accreditation Board developed these, the first set of National Hygiene Assessment Standards in 2006. This development plan involved an extensive desktop review of national and international best practice literature, working groups and extensive consultation. The feedback from these development components formed the final draft Standards and Assessment Process, which were then piloted in a number of acute hospitals. *(The Irish Health Services Accreditation Board was subsumed into the Health Information and Quality Authority in May 2007.)*

The Hygiene Services Assessment Scheme (HSAS) was launched by the Minister for Health Mary Harney on the 6th November 2006.

Hygiene is defined as:

“The practice that serves to keep people and environments clean and prevent infection. It involves the study of preserving one’s health, preventing the spread of disease, and recognising, evaluating and controlling health hazards. In the healthcare setting it incorporates the following key areas: environment and facilities, hand hygiene, catering, management of laundry, waste and sharps, and equipment”¹⁻⁴

More specifically, the Hygiene Services Assessment Scheme incorporates the following:

- Environment and Facilities: incorporates the condition of the building and all its fixtures, fittings and furnishings.
- Hand Hygiene: incorporates hand washing, antiseptic hand-rub and surgical hand antisepsis.
- Catering: incorporates kitchens (including ward kitchens) fixtures and fittings and food safety.
- Management of Laundry: incorporates management of linen and soft furnishings both in-house laundry and external facilities.
- Waste and Sharps: incorporates handling, segregation, storage and transportation.
- Equipment: incorporates patient, organisational, medical and cleaning equipment.

1.1.1 Standards Overview

The standards are divided into two sections: Corporate Management and Service Delivery. Each standard is divided into a number of criteria. These are specific steps, activities or decisions that must occur to achieve the standard.

The 14 Corporate Management standards facilitate the assessment of performance with respect to hygiene services provision to the organisation and patient clients at organisational management level. These standards commence at the planning stage and follow through to governing, implementation and evaluation. They incorporate four critical areas:

- Leadership and Partnerships
- Management of the Environment and Facilities
- Management of Human Resources
- Information Management.

The six Service Delivery standards facilitate the assessment of performance at team level. The standards address the following areas:

- Evidence based best practice and new interventions
- Prevention and Health Promotion
- Integration and coordination of hygiene services
- Implementing safe, efficient and effective hygiene services
- Protection of patient/clients rights
- Assessing and Improving performance.⁵

The standards and process have been assessed and internationally accredited by the International Society for Quality in Healthcare (ISQua).

Core Criteria:

To ensure that there is a continual focus on the principal areas of the service, 15 core criteria have been identified within the standards to help the organisation and the hygiene services to prioritise areas of particular significance.

In the Corporate Management standards, the core criteria cover:

Allocation of resources, accountability, risk management, contract management and human resource management.

In the Service Delivery standards, core criteria cover:

Waste management, hand hygiene, kitchens and catering, management of linen, equipment, medical and cleaning devices and the organisation's physical environment.

1.1.2 Rating Scale

The rating of individual criterion is designed to assist self-assessment teams and the organisation in general, to prioritise areas for development. The rating for the criterion can be determined based on the percentage level of compliance.

The rating scale utilised by the Hygiene Services Assessment Process is a five-point scale:

- A Compliant - Exceptional**
 - There is evidence of exceptional compliance (greater than 85%) with the criterion provisions.
- B Compliant - Extensive**
 - There is evidence of extensive compliance (between 66% and 85%) with the criterion provisions.
- C Compliant - Broad**

- There is evidence of broad compliance (between 41% and 65%) with the criterion provisions.
- D Minor Compliance**
 - There is evidence of only minor compliance (between 15% and 40%) with the criterion provisions.
- E No Compliance**
 - Only negligible compliance (less than 15%) with the criterion provisions is discernible.
- N/A Not Applicable**
 - The criterion does not apply to the areas covered by the Self Assessment Team. Rationale must be provided. This cannot be used for a core criterion.

1.1.3 Assessment process components

The assessment process involves four distinct components:

- **Preparation and self assessment undertaken by the organisation.**

The self-assessment process allows an organisation to systematically evaluate its hygiene services against a set of best practice standards. This was completed by a multidisciplinary team(s) over a period of two months. This process was preceded by regional education sessions.

- **Unannounced assessment undertaken by a team of external assessors**

The HIQA has recruited senior professionals from the areas of medicine, nursing and corporate management as assessors, in addition to independent senior professionals with specialist knowledge in the core areas. To assure consistency across all sites four leaders were chosen from this group to cover all unannounced visits. The assessor's performance was regularly evaluated based on feedback from participating organisations, HIQA staff and other assessors.

Site visits for the larger academic teaching hospitals were completed over 2.5 days with four assessors, and assessments were completed in the smaller hospitals over 2 days with three assessors. The assessment team were responsible for identifying the organisation's compliance with the standards and helping to guide its improvement.

The assessment included a comprehensive documentation review, meetings with management, staff and patients. Throughout the assessment process the assessors worked as a team to cross reference their findings. This ensured that the ratings for each criterion were agreed upon and reflected an accurate picture of the organisation's level of compliance. Feedback was provided to the Chief Executive / General Manager and senior management team by the Assessment Team Leader, at the end of each day of the assessment.

- **Provision of an outcome report and determination of award status.**

The Internal Review Committee of the HIQA reviewed all the reports to ensure consistency, and based on the quantifiable translation guidelines, awards were made. Only organisation's which received a "very good" score were acknowledged with an award for the duration of one year. By the end of

October 2007 all 51 acute care hospitals had received a copy of their individual report.

At the same time the HIQA launched a National Report of the findings of all assessment reports. These standards are different from the first two hygiene audits, therefore a direct correlation of results were not possible.

- **Continuous Improvement**

Going forward a quality improvement plan should now be structured from the self assessment and recommendations from the external report. This will then be monitored by the HIQA.

The areas of notable practice, quality improvement plans, areas of priority action, overall score, criterion ratings and comment and are presented in the following pages of the report.

¹ Boot, M and Cairncross, S "Actions Speak" Delft, The Netherlands, IRC and LSTHM, British Occupational Hygiene Society.

² New York Department of Health and Mental Hygiene

³ The Columbia Electronic Encyclopaedia, Sixth Edition. Columbia University Press. 2003

⁴ Irish Acute Hospitals Cleaning Manual, HSE (2006)

⁵ Hygiene Services Assessment Scheme. Irish Health Services Accreditation Board (2006)

1.2 Organisational Profile

South Infirmary Victoria University Hospital is a voluntary general acute hospital and caters for both public and private patients. It is the third largest acute service provider in the Cork area with a complement of 275 beds. It operates the second largest A&E Department in Cork, dealing with approximately 30,000 patients per annum. The hospital is the regional centre for ENT and dermatology services and is the major centre in the HSE, Southern Area area for the treatment of breast cancer and for gynaecological oncology services.

The hospital has academic links with the University College Cork and is involved in the training of both undergraduate and postgraduate medical staff.

Services provided

The following services are provided by the hospital:

- Anaesthesiology
- Audiology
- Cardiology/Chest Pain Assessment Clinic; Cardiac Rehabilitation
- Chaplaincy
- Day Medical Unit
- Day Surgery Unit including Pre-Admissions Assessment Clinic
- Dermatology
- Dietetic Department
- Discharge Co-ordinators
- Ear, Nose & Throat; Head & Neck Oncology
- Emergency Medicine
- Endocrinology/Diabetic Medicine
- General Internal Medicine
- General Surgery including Breast Care
- Genito Urinary Medicine
- Gynaecology including Oncology
- Medicine for the Elderly
- Occupational Therapy
- Oncology/Palliative Care
- Ophthalmology Consultation Services
- Pastoral Care
- Pharmacy
- Phlebotomy
- Physiotherapy
- Plastic Surgery
- Podiatry
- Rheumatology
- Social Work Department
- Speech & Language Therapy
- Sexual Assault Treatment Unit

Physical structures

There are two private wards which are also used as isolation beds. These total 24.

1.3 Notable Practice

The organisation has areas where best practice is evident:

- The Hygiene Coordinator post was well maintained.
- The Hygiene Services Committee functions well.
- Internal hygiene audits have been carried out.
- Patient satisfaction surveys are commendable.
- The refurbishment of some clinical areas is noteworthy.
- The ward schedules for cleaning of patient and environmental surfaces is noted.
- The Catering Department operates to a high standard.

1.4 Priority Quality Improvement Plan

The organisation is encouraged to prioritise the following areas to reduce risk of potential adverse incidents to patients/clients and health care workers:

- It is recommended that the organisation develop a Corporate Hygiene Strategic Plan and Service Plan.
- Review the storage and transportation of linen to the clinical areas.
- Implement the National Aspergillus's Policy.
- The entrance area requires attention on a regular basis. The cleaning frequency might benefit from review.
- It is recommended that the organisation discontinue the use of tea towels in the kitchen.
- The organisation is encouraged to upgrade to dishwashers with a digital read-out dial.
- The organisation is recommended to implement a planned maintenance programme to repair damaged walls and skirting.
- The introduction of a Quality Improvement Plan to ensure high dusting is carried out and monitored at local level.

1.5 Hygiene Services Assessment Scheme Overall Score

The decision mechanism used to translate an organisation's criteria, risk ratings to a Hygiene Service Assessment Scheme score is based on a quantitative analysis of the assessment results which ensures consistency of application. The decision regarding a score is made by the Internal Review Committee of HIQA, based on the findings of the Assessment Team; the South Infirmary Victoria University Hospital has achieved an overall score of:

Fair

Award Date: October 2007

1.6 Significant Risks

CM 3.1 (Rating D)
The organisation has a clear corporate strategic planning process for Hygiene Services that contributes to improving the outcomes of the organisation.

Potential Adverse Event

Clear goals and objectives for Hygiene Services will not be defined.

Risks

Likelihood of Event	Rated: M (2)
Impact of Event	Rated: M (2)
Urgency of Action	Rated: M (2)
TOTAL	Total: 6

Recommendations

It is recommended that the organisation develop a Hygiene Services Corporate Strategic Plan for the Hospital

2.0 Standards for Corporate Management

The following are the ratings for the Corporate Management standards, as validated by the Assessment team. The Corporate Management standards allow the organisation to assess and evaluate its activities in relation to Hygiene Services at an organisational level. There are fourteen Corporate Management standards, all of which are focused on four critical areas: leadership and partnerships, environment and facilities, human resources and information management. They include such subjects as corporate planning, allocating and managing resources, enhancing staff performance and contractual agreements. There are eight core criteria within these standards.

PLANNING AND DEVELOPING HYGIENE SERVICES

CM 1.1 (C → C)

The organisation regularly assesses and updates the organisation's current and future needs for hygiene services.

The organisation bases its hygiene services needs assessment on current legislation and best practice and external/internal audit reports. These were used to inform the contract cleaning specification which was in the process of renewal at the time of the assessment. The organisation had yet to develop a Hygiene Corporate Strategic Plan, Service Plan and Operational Plan. A Hygiene Service Committee is in place and a Hygiene Co-ordinator had been in position as an interim initiative for the last year. There was no formal evaluation of the efficacy of the needs assessment process, however, there was evidence of on-going changes in areas such as service hours, facilities and audit.

ESTABLISHING LINKAGES AND PARTNERSHIPS FOR HYGIENE SERVICES

CM 2.1 (B ↓ C)

The organisation links and works in partnership with the Health Services Executive, various levels of Government and associated agencies, all staff, contract staff and patients/clients with regard to hygiene services.

Evidence of broad compliance with this criterion was noted. A patient satisfaction comment card system is in place and these, together with post boxes for completed cards, are readily available. No formal evaluation of the linkages and partnerships has taken place. The organisation is encouraged to implement its Quality Improvement Plan to include hygiene as a regular item on the agenda of the Patient Advocacy Group.

CORPORATE PLANNING FOR HYGIENE SERVICES

CM 3.1 (C ↓ D)

The organisation has a clear corporate strategic planning process for hygiene services that contributes to improving the outcomes of the organisation.

A multi-disciplinary Hygiene Services Committee is in place and the General Manager is a member. A corporate strategic planning process is in place for the development of clinical services and hygiene services are considered as a part of this process with regard to staffing. There was no Hygiene Corporate Strategic Hygiene Plan in place. The Hygiene Service Committee should develop a Corporate Strategic

Hygiene Plan with clearly defined goals, objectives, priorities and related costings in accordance with its identified Quality Improvement Plan (QIP). This should become the basis for the development of an annual Hygiene Service Plan, which in turn should become the structure for benchmarking progress.

GOVERNING AND MANAGING HYGIENE SERVICES

CM 4.1 (C ↑ B)

The Governing Body and its Executive Management Team have responsibility for the overall management and implementation of the Hygiene Service in line with corporate policies and procedures, current legislation, evidence based best practice and research.

The Organisation has a Board of Directors with overall managerial responsibility. There is delegated authority to the General Manager for the day to day management of services. The organisation's Code of Corporate Ethics is reflected in its Mission statement which is widely displayed throughout the Organisation. The Organisation has yet to formally evaluate its adherence to legislation and best practice. However it has well established risk, complaints and Health and Safety structures in place which generate annual reports demonstrating low levels of adverse incidents/complaints concerning hygiene services.

CM 4.2 (B ↓ C)

The Governing Body and/or its Executive Management Team regularly receive useful, timely and accurate evidence or best practice information.

The organisation has a practice of dissemination of relevant new legislation and best practice to appropriate in-house committees for consideration and recommendations for implementation locally. Access is also available through the internet. It is recommended that the organisation develop a documented process for the implementation of new legislation and best practice, including training/education and evaluation.

CM 4.4 (C → C)

The organisation has a process for establishing and maintaining best practice policies, procedures and guidelines for Hygiene Services.

It is recommended that the organisation adopt a standard approach to ensure ease of use, review and dissemination of policies, procedures and guidelines. This should include a standard evaluation process for all new policies, procedures and guidelines.

CM 4.5 (C → C)

The Hygiene Services Committee is involved in the organisation's capital development planning and implementation process.

An established practice of involvement of staff in capital development planning is in place. The organisation should consider developing a documented process to ensuring relevant hygiene staff are included in capital development, which ensures optimum input of relevant staff.

ORGANISATIONAL STRUCTURE FOR HYGIENE SERVICES

*Core Criterion

CM 5.2 (B → B)

The organisation has a multi-disciplinary Hygiene Services Committee.

A multi-disciplinary Hygiene Services Committee is in place, which meets monthly. The membership includes the organisation's senior managers and there are identified roles, responsibilities and terms of reference in place.

ALLOCATING AND MANAGING RESOURCES FOR HYGIENE SERVICES

*Core Criterion

CM 6.1 (C → C)

The Governing Body and/or its Executive/Management Team allocate resources for the hygiene service based on informed equitable decisions and in accordance with corporate and service plans.

The organisation has invested resources in addressing the needs of the hygiene services over the last two years. Quality Improvement Plans are identified to address some outstanding needs. It is recommended that the organisation develop a Corporate Hygiene Strategic plan and a Hygiene Service Plan.

CM 6.2 (C → C)

The Hygiene Committee is involved in the process of purchasing all equipment/products.

There is an established practice for the involvement of relevant staff in the pre-purchase of equipment and products. The organisation is recommended to develop a documented process to ensure relevant consultation with the hygiene services committee and the governing body concerning suitability, use and maintenance.

MANAGING RISK IN HYGIENE SERVICES

*Core Criterion

CM 7.1 (C → C)

The organisation has a structure and related processes to identify, analyse, prioritise and eliminate or minimise risk related to the Hygiene Service.

A Risk Management System is in place, which provides for the identification, analysis, prioritisation, elimination and minimisation of risk. There is also a Health and Safety Committee. Both of these areas generate annual reports. There have been no major adverse events concerning hygiene services noted in the last two years. There were external and internal audit reports pertaining to hygiene services, for example, Environment Health Officer reports, decontamination audit, regular hygiene audits conducted by the organisation and hygiene contractor and catering audits. Construction work is due to commence, including two isolation rooms, and a storage area for linen. The organisation is encouraged to roll out the Legionella and Aspergillus policies, which are being reviewed. The Waste Management Officer is encouraged to ensure that the organisation is compliant with current best practice in relation to transportation of waste. The organisation should also ensure that food samples are retained by the main kitchen in accordance with best practice, and kitchen staff agreed to commence retention of food samples immediately during the assessment.

CM 7.2 (C ↑ B)

The organisation's hygiene services risk management practices are actively supported by the Governing Body and/or its Executive Management Team.

There is senior manager representation on the Hygiene Services and Risk Management Committees. Strong corporate support for patient/public and staff safety was evident. Evidence of evaluation of Risk and Health and Safety reports and a culture of continuous quality improvement was observed.

CONTRACTUAL AGREEMENTS FOR HYGIENE SERVICES

*Core Criterion

CM 8.1 (C ↑ B)

The organisation has a process for establishing contracts, managing and monitoring contractors, their professional liability and their quality improvement processes in the areas of hygiene services.

Evidence of extensive compliance with this criterion was noted. At the time of the assessment, the organisation was in the process of renewing the cleaning contract and issuing a tender for a new linen contract.

CM 8.2 (C ↑ B)

The organisation involves contracted services in its quality improvement activities.

The cleaning contractor has an on-site supervisor, who is a member of the Hygiene Committee. Evidence of considerable integration between the contract cleaning service and the organisation over the last two years was observed. The contract cleaners work closely with the organisation to improve/integrate the services through shared education and audits. The appointment of the Hygiene Co-ordinator has also strengthened this interface.

PHYSICAL ENVIRONMENT, FACILITIES AND RESOURCES.

CM 9.1 (C → C)

The design and layout of the organisation's current physical environment is safe, meets all regulations and is in line with best practice.

The two constituent buildings were old and designed for open plan wards. These had been adapted in some instances and those outstanding issues should also be adapted in accordance with the organisation's Quality Improvement Plan (QIP). While the main kitchen is zoned for food handling, its design does not permit a one-way food journey from delivery of raw materials to transfer of cooked food. There was an identified need to build a new CSSD to current best practice standards, and this should be progressed as soon as possible. The construction of two negative pressure isolation rooms was imminent and necessary. The staff were to be commended for their optimisation of the facilities at their disposal. Opportunities to further enhance these situations should be considered and availed of as soon as possible.

CM 9.3 (C → C)

There is evidence that the management of the organisation's environment and facilities, equipment and devices, kitchens, waste and sharps and linen is effective and efficient.

Documented outcomes were available for relevant internal and external audits across the hygiene services with evaluations and Quality Improvement Plans. Evidence of patient satisfaction evaluation was also noted. Patients/clients interviewed during the assessment were very positive in their observations of the hygiene standards experienced. The organisation has on-going quality improvement initiatives across all aspects of hygiene services. The Infection Control Department was actively involved in hygiene management with considerable input into education and audit.

CM 9.4 (C ↑ B)

There is evidence that patients/clients, staff, providers, visitors and the community are satisfied with the organisation's hygiene services facilities and environment.

Patient comment cards are widely available throughout the organisation, with a system in place for evaluation and feedback. This includes the management of complaints, and this is also evaluated.

SELECTION AND RECRUITMENT OF HYGIENE STAFF

CM 10.1 (B ↓ C)

The organisation has a comprehensive process for selecting and recruiting human resources for hygiene services in accordance with best practice, current legislation and governmental guidelines.

All staff are recruited directly by the organisation, with the exception of some of the contract cleaning service staff who are recruited by the contractor. All job descriptions are in place and staff are recruited in accordance with current legislation and national human resource policies. The contractor has developed documented process for the selection/recruitment of staff. All records for in-house staff are held by the organisation. Selection/recruitment records for contract staff are held by the contractor. Training records for all staff are held by the organisation. No formal evaluation process is in place, which is recommended.

CM 10.2 (C ↑ B)

Human resources are assigned by the organisation based on changes in work capacity and volume, in accordance with accepted standards and legal requirements for hygiene services.

The need for changes in the work capacity and volume are addressed at regular cleaning meetings between the contractor and the organisation. The cleaning hours have been extended in a number of areas following a review in 2006. Infection control and janitorial services have been expanded, and a Hygiene Services Co-ordinator has been appointed on an interim basis. The organisation's intention to formalise this post is commendable. The recent appointment of a Waste Management Officer is also commendable. The outcomes of the various hygiene audits are used to evaluate the effectiveness of the volume review process and to inform any further changes.

CM 10.3 (B → B)

The organisation ensures that all hygiene services staff, including contract staff, have the relevant and appropriate qualifications and training.

The organisation demonstrated extensive compliance with this criterion. Where pre-employment qualifications are necessary they are identified in job descriptions and screened at the selection/recruitment stage.

CM 10.4 (C ↑ B)

There is evidence that the contractors manage contract staff effectively.

Contracts are in place for all other contracted services for example pest control, waste, linen and water sampling.

Documented processes for the management of contract staff are in place, which were identified in the tender document. The cleaning contractor has an on-site supervisor and a regional manager, both of whom work closely with the organisation. The processes for interaction with the organisation's management has been strengthened in the last two years through regular meetings and audit reviews. Contract staff also have access to the organisations Occupational Health Services. Induction and on-going training is provided—staff and supervisors are trained to the appropriate BICS standards. It is recommended that the organisation ensure that contract staff, including the shop staff, receive mandatory training.

*Core Criterion

CM 10.5 (C → C)

There is evidence that the identified human resource needs for hygiene services are met in accordance with hygiene corporate and service plans.

There is an identified human resource whole time equivalent for hygiene services and this has been increased to meet identified additional resource needs. However, this is not based on a documented hygiene service plan. The organisation is encouraged to develop and cost a multi-year hygiene corporate strategic plan, which should be based on an annual hygiene service plan. It should be possible to benchmark progress at regular intervals. The organisation should review its operational plans to ensure they cover all aspects of hygiene services, including the updating of infection control policies as necessary. The Hygiene Services Committee is encouraged to compile the Hygiene Services Annual Report based on the above documented structures for the management of its Hygiene Services.

ENHANCING STAFF PERFORMANCE

CM 11.3 (C ↑ B)

There is evidence that education and training regarding Hygiene Services is effective.

There was evidence of extensive compliance with this criterion. Evaluation of In-service training sessions is carried out. Audit outcomes for Infection control demonstrate increased staff awareness as a result of training. Some developments followed from the recommendations of the Acute Care Accreditation Report in 2005. The organisation is encouraged to identify a suite of Key Performance Indicators relevant to hygiene services and include these in their Service Plan and Annual Report.

CM 11.4 (C → C)

Performance of all hygiene services staff, including contract/agency staff, is evaluated and documented by the organisation or their employer.

Contract cleaning staff are subject to formal evaluation for example, frontline staff had their performance assessed according to a competency evaluation. Contract supervisors are appraised annually, using a Personal Development Appraisal Tool. The performance of in-house staff is evaluated by their line managers and based on compliance with the relevant standards (for example HACCP).

PROVIDING A HEALTHY WORK ENVIRONMENT FOR STAFF

CM 12.1 (B → B)

An occupational health service is available to all staff.

The organisation has a well-developed Occupational Health Service and the Department works closely with the Human Resources Department, Risk Management and Health and Safety. Key Performance Indicators are monitored and reported to the relevant management staff. An annual report is also produced.

CM 12.2 (C → C)

Hygiene services staff satisfaction, occupational health and well-being is monitored by the organisation on an on-going basis.

A wide range of performance indicators are monitored to identify staff satisfaction, occupational health and well-being. These include absenteeism, accidents/incidents, complaints and Health and Safety issue referrals. The organisation is encouraged to evaluate these mechanisms and ensure continuous quality improvement in this area.

COLLECTING AND REPORTING DATA AND INFORMATION FOR HYGIENE SERVICES

CM 13.1 (C → C)

The organisation has a process for collecting and providing access to quality hygiene services data and information that meets all legal and best practice requirements.

Evidence of broad compliance with this criterion was noted. The organisation should ensure that the annual report for hygiene services contains input from each of the relevant departments, which is both qualitative and quantitative and reflects the relevant Key Performance Indicators. These should be evaluated for reliability, accuracy and validity and form the basis for continuous quality improvement planning.

CM 13.2 (C → C)

Data and information are reported by the organisation in a way that is timely, accurate, easily interpreted and based on the needs of the hygiene services.

Reports generated by hygiene services include minutes of meetings, policies, procedures and guidelines, audit reports and an annual report. Audit reports are available on the intranet and discussed at relevant line manager meetings where the improvement plan is identified. Re-audits are conducted where necessary. Other reports include Infection Control, Risk Management and Health and Safety. The Hygiene Services Committee is encouraged to identify a template for the hygiene services annual report, a process for collection of the relevant information and a date by which the report will be produced each year.

CM 13.3 (C → C)

The organisation evaluates the utilisation of data collection and information reporting by the hygiene services team.

Internal hygiene audit reports have been introduced in the last two years. Separate systems are used by the contract and in-house cleaning services. It is recommended that a standard tool and approach be used for both and that the frequency of audits be reviewed to allow for more realistic time frames for addressing identified quality improvements. It was also recommended that all areas of Hygiene Services be audited, for example, linen.

ASSESSING AND IMPROVING PERFORMANCE FOR HYGIENE SERVICES

CM 14.1 (B → B)

The Governing Body and/or its Executive Management Team foster and support a quality improvement culture throughout the organisation in relation to hygiene services.

Evidence of extensive compliance with this criterion over the last two years was noted. The design and lack of storage space are significant impediments to the provision of optimal storage and patient/staff facilities. However it was evident that the strengthened interface with the cleaning contractor has resulted in improvements. The corporate ownership of the hygiene management and standards of delivery and the establishment and work to date of the Hygiene Service Committee are also commendable. The process of internal Hygiene auditing is well established. The Ward upgrade programme has enhanced patient/client facilities considerably and the organisation is encouraged to finalise this project as soon as possible. This organisation appeared to have made considerable progress with its hygiene agenda and has developed a strong foundation on which to continue the development of its hygiene services.

CM 14.2 (C → C)

The organisation regularly evaluates the efficacy of its hygiene services quality improvement system, makes improvements as appropriate, benchmarks the results and communicates relevant findings internally and to applicable organisations.

The organisation benchmarks its internal and national hygiene audit findings against its previous outcomes and identifies its Quality Improvement Plans accordingly. The Catering Department seeks external recognition and has a history of success. The organisation will benefit from on-going evaluation of the efficacy of its hygiene services quality improvement systems. The organisation is encouraged to consider increased networking with other organisations for the sharing of knowledge/expertise.

3.0 Standards for Service Delivery

The following are the ratings for the Service Delivery standards, as validated by the Assessment team. The service delivery standards allow an organisation to assess and evaluate its activities in relation to hygiene services at a team level. The Service Delivery standards relate directly to operational day-to-day work and responsibility for these standards lies primarily with the Hygiene Services Team in conjunction with Ward/Departmental Managers and the Hygiene Services Committee. There are six Service Delivery standards, which focus on such areas as prevention and health promotion, implementing hygiene services and patients/clients rights. There are seven core criteria within these standards.

EVIDENCE BASED BEST PRACTICE AND NEW INTERVENTIONS IN HYGIENE SERVICES

SD 1.1 (C → C)

Best practice guidelines are established, adopted, maintained and evaluated, by the team.

The organisation established a Hygiene Committee in 2005 and has appointed a Hygiene Coordinator. The organisation's Infection Control Nurse has developed the Infection Control Manual in line with best practice. The organisation's kitchen adheres to HACCP regulation. Reports from Environmental Health Officers (EHO) are available and non conformances are identified and addressed. In some areas protected time has been allocated to staff for education. The organisation is compliant with the National Cleaning Colour Coding Policy.

It is recommended that the evaluation of efficacy of processes be formalised. Processes should be implemented for the development/adoption, maintenance and evaluation of organisational best practice guidelines.

PREVENTION AND HEALTH PROMOTION

SD 2.1 (C → C)

The team in association with the organisation and other services providers participates in and supports health promotion activities that educate the community regarding hygiene.

A Patient Advocacy Group has been set up. Hand hygiene leaflets and an Intensive Care Unit information leaflet are available for visitors. An Outbreak Policy is available in the Infection Control Manual and health promotion leaflets are also available. Alcohol hand gel is accessible and technique posters are prominent. An Infection Control notice board was observed, however the organisation is encouraged to include a patient leaflet on the notice-board. The organisation is also encouraged to formalise the evaluation of the efficacy of the process in the near future, and to consider including a patient/client representative on the Hygiene Committee.

INTEGRATING AND COORDINATING HYGIENE SERVICES

SD 3.1 (C → C)

The Hygiene Service is provided by a multi-disciplinary team in cooperation with providers from other teams, programmes and organisations.

There was evidence to suggest that the hygiene service is provided by a multi-disciplinary team (MDT) and details of this membership were noted during the

assessment. Education provides a route to inform other MDT members of each others' roles. The organisation is recommended to evaluate the efficacy of the team.

IMPLEMENTING HYGIENE SERVICES

*Core Criterion

SD 4.1 (B → B)

The team ensures the organisation's physical environment and facilities are clean.

The organisation employs the services of contract and in-house cleaning staff, which is clearly defined to cover the South and Victoria sections of the hospital. Clinical areas have defined cleaning specifications available. Implementation of the specifications and continuous monitoring at local level is required. It is recommended that sticky tape and residue is removed from patient contact and environmental surfaces (for example lockers, dressing trolleys, light switches, vacuum cleaners and bed frames). During refurbishment of clinical areas, the organisation is encouraged to ensure that all surfaces (for example window sills) are upgraded to facilitate cleaning. It is also encouraged that wall reinforcements (for example wall protectors) are installed behind pedal waste bins and areas of high point of impact with equipment. The organisation is encouraged to review the size of utility rooms to allow for positioning of hand wash sinks. A cleaning schedule should also be implemented to include high dusting, cupboard shelving and external glass and monitoring at local level. The documented process regarding curtain changing observed was excellent.

For further information see Appendix A.

*Core Criterion

SD 4.2 (B ↑ A)

The team ensures the organisation's equipment, medical devices and cleaning devices are managed and clean.

The organisation was extensively compliant in this area. Cleaning specifications for patients/clients medical equipment is available within the Infection Control Manual, which is located in clinical areas. Some ward areas have devised a check list record to demonstrate that items are cleaned. Evidence of the availability of detergent wipes within clinical areas was noted, however, further education is required regarding the closure of container lids to prevent the drying out of wipes. The organisation is encouraged to implement a cleaning schedule which includes medical chart holders and the rear of cardiac arrest trolleys, Zimmer frames and hoists.

For further information see Appendix A.

*Core Criterion

SD 4.3 (C ↑ A)

The team ensures the organisation's cleaning equipment is managed and clean.

The hospital has trialled a new "smart system" for consideration for use. The storage of this facility should be reviewed. Cleaners' rooms must of adequate size to facilitate positioning of the hopper sink, hand wash basin (as per HBN 95 guidelines) and storage of cleaning trolleys and vacuum cleaners. All cleaning equipment observed was stored clean and dry.

For further information see Appendix A.

*Core Criterion

SD 4.4 (A → A)

The team ensures the organisation's kitchens (including ward/department kitchens) are managed and maintained in accordance with evidence based best practice and current legislation.

Overall, the kitchen was compliant with HACCP guidelines. The organisation is encouraged to consider signage identifying potable water. Sticky tape and residue must be removed from plate covers. The organisation is encouraged to discontinue the use of cotton tea towels. The organisation should progress the purchase of digital temperature read-outs for dishwashers and a restricted kitchen access policy should be implemented.

For further information see Appendix A.

*Core Criterion

SD 4.5 (C ↑ B)

The team ensures the inventory, handling, storage, use and disposal of hygiene services hazardous materials, sharps and waste is in accordance with evidence based codes of best practice and current legislation.

Space constraints (both internal and external) have impacted on the storage of waste and sharps in the organisation. The organisation is recommended to evaluate the opportunities to address these short-comings in the context of any new structural developments.

For further information see Appendix A.

*Core Criterion

SD 4.6 (C ↑ B)

The team ensures the organisation's linen supply and soft furnishings are managed and maintained.

Linen services are contracted; however, mop heads and some patient/client items (for example physiotherapy) are laundered in house. The organisation must address the storage of clean and used linen and also focus on the use of appropriate laundry bags for soiled linen. A review of the practice of disposing of used linen at the point of transfer from bed/trolley should be considered.

For further information see Appendix A.

*Core Criterion

SD 4.7 (C ↑ B)

The team works with the Governing Body and/or its Executive Management team to manage hand hygiene effectively and in accordance with SARI guidelines.

The hospital is undergoing refurbishment of clinical areas; however, it is recommended that the provision of sufficient wash hand basins is progressed to ensure compliance with the SARI recommendations. The organisation is encouraged to ensure that new doctors are included in the SIVUH education programme for hand hygiene. The organisation is encouraged to consider positioning curtain rails away from hand wash basins to ensure accessibility during hand washing.

For further information see Appendix A.

SD 4.8 (C ↑ B)

The team ensures all reasonable steps to keep patients/clients safe from accidents, injuries or adverse events.

There is extensive compliance with the criterion provisions. Issues identified throughout the checklist were isolated and are not hospital wide. While there were insufficiencies (wash hand basins), the organisation had alcohol hand rub available at the end of each bed.

SD 4.9 (C → C)

Patients/clients and families are encouraged to participate in improving hygiene services and providing a hygienic environment.

Patient satisfaction comment cards were observed throughout the organisation and a visiting policy is in place. Hand hygiene leaflets are available at entrances and accessibility to alcohol hand gel was noted. The organisation is encouraged to consider a patient/client representative on the Hygiene Services Committee.

PATIENT'S/CLIENT'S RIGHTS

SD 5.1 (C → C)

Professional and organisational guidelines regarding the rights of patients/clients and families are respected by the team.

A patient/client charter and hospital mission statement are displayed throughout the organisation. The availability of the Infection Control Manual at clinical areas and via intranet is to be commended. Cleaning colour coding posters were widely available and the visitor's policy was available and wall mounted, which is commended.

A low incidence of hygiene complaints and adverse incidents was noted. A root case analysis of incidents is in place and complaints followed up, which is commended. The Risk Management Committee has a formal process for the evaluation of patient/client rights.

SD 5.2 (C ↑ B)

Patients/clients, families, visitors and all users of the service are provided with relevant information regarding hygiene services.

Hand hygiene information and posters are provided throughout the organisation. Visiting notices are in place.

It is recommended that the organisation reviews patient information leaflets. Some patient satisfaction surveys are carried out. Patients interviewed during the hygiene assessment visit expressed high praise for hospital facilities and staff. Formal processes for reviewing patient satisfaction surveys were observed.

SD 5.3 (C ↑ B)

Patient/client complaints in relation to hygiene services are managed in line with organisational policy.

A Patients' Complaint Officer is employed in the organisation and the appointment of a Hygiene Coordinator is to be commended. A patient satisfaction comment card system is available and posting boxes were observed throughout the organisation. The evaluation and review of satisfaction surveys was also noted.

ASSESSING AND IMPROVING PERFORMANCE

SD 6.1 (C → C)

Patients/clients, families and other external partners are involved by the hygiene services team when evaluating its service.

While the Patient Advocacy Group has been established and hygiene has been placed on its agenda, the organisation is recommended to ensure that the group becomes comprehensively involved in the area of hygiene services.

SD 6.2 (B ↓ C)

The hygiene services team regularly monitors, evaluates and benchmarks the quality of its hygiene services and outcomes and uses this information to make improvements.

The organisation has developed an annual hygiene report and embarked on further enhancements of hygiene services over the last two years. The organisation is recommended to review the development of a suite of Key Performance Indicators for hygiene services as a Quality Improvement Plan.

SD 6.3 (C → C)

The multi-disciplinary team, in consultation with patients/clients, families, staff and service users, produce an annual report.

The organisation produces an annual report. The organisation is recommended to identify a Hygiene Service Plan based on a Corporate Strategic Hygiene Plan and benchmark progress, which would reflect outcomes in the annual report.

4.0 Appendix A

The following are the scores received for the Service Delivery core criteria compliance requirements. The organisation must provide evidence of exceptional compliance (greater than 85%) to achieve an 'A' rating. All 'core criteria' must have achieved an 'A' rating to receive a score of 'very good' and be acknowledged with an award.

4.1 Service Delivery Core Criterion

Compliance Heading: 4. 1 .1 Clean Environment

(1) The environment is tidy, well-maintained, free of rust, blood or body substances, dust, dirt, debris and spillages.

No - A number of areas were dusty and in need of attention.

(2) All high and low surfaces are free from dust, cobwebs and flaking paint.

No - Paint peeling on walls was observed and some cobwebs were noted on window sills.

(3) Wall and floor tiles and paint should be in a good state of repair.

Yes - The floor replacement programme, which was identified as a Quality Improvement Plan, is encouraged.

(5) Cleanable, well-maintained furniture, fixtures and fittings used.

Yes - Some items were in need of replacement, for example, some armchairs and wooden handles.

(6) Free from offensive odours and adequately ventilated.

Yes – In the majority, however, ventilation should be addressed in some areas.

(7) Areas should be adequately ventilated with ventilation units cleaned and serviced accordingly and documentation available regarding service.

Yes - A contract is in place to ensure compliance.

(8) All entrances and exits and component parts should be clean and well maintained.

No - Cigarette and waste were evident at entrances and exits.

(14) Waste bins should be clean, in good repair and covered.

Yes - In the majority, however, some exceptions were noted.

(15) Where present a designated smoking area must comply with the national legislation on tobacco control and local organisational policies, a cigarette bin must be available and the floor area should be free of cigarette ends, matches etc.

No - No designated areas were observed.

(16) Hospitals are non-smoking environments. However, cigarette bins should be available in external designated locations.

No - No designated smoking areas were observed.

Compliance Heading: 4. 1 .2 The following building components should be clean:

(17) Switches, sockets and data points.

Yes - In the majority, however, sticky residue in some areas was noted.

(18) Walls, including skirting boards.

Yes - In the majority, however, some soiled, damaged walls and skirting boards were observed.

(19) Ceilings.

Yes - In the majority, however, some evidence of dampness was noted in some areas.

(20) Doors.

No - Damaged doors were observed in a number of areas.

(21) Internal and External Glass.

No - External glass was observed as being in need of attention and cobwebs were noted on some windows.

(25) Floors (including hard, soft and carpets).

Yes - However, attention to the corners in some areas is required.

Compliance Heading: 4. 1 .3 Organisational Buildings and Facilities (note: while list is not exhaustive, the following compliance is required):

(32) Shelves, benchtops, cupboards are clean inside and out and free of dust and spillage.

Yes - Some cupboards noted to require further cleaning.

(209) Air vents are clean and free from debris.

No - The staff restaurant requires further attention.

Compliance Heading: 4. 1 .4 All fittings & furnishings should be clean; this includes but is not limited to:

(36) Lockers, Wardrobes and Drawers.

Yes - Some sticky tape was noted, which should be addressed.

Compliance Heading: 4. 1 .5 Sanitary Accommodation.

(48) Floors including edges and corners are free of dust and grit.

Yes - However, some exceptions were noted.

(49) Cleaning materials are available for staff to clean the bath/shower between use.

Yes - However, some exceptions were noted.

Compliance Heading: 4. 1 .6 All sanitary fixtures and appliances should be clean and well-maintained. This includes but is not limited to:

(51) Baths and Showers.

Yes - However, some exceptions were noted.

(58) Sluice rooms should be free from clutter and hand washing facilities should be available.

Yes - However, some exceptions (which are included in the Quality Improvement Plan).

(60) All outlets (including shower outlets) should be flushed at a temperature in accordance with current legislation.

No - A Quality Improvement Plan was in place to implement the Legionella policy in the near future.

(210) Consumables should be readily available and stored in a suitable environment, e.g. liquid soap, paper towels, toilet paper. Clean and well maintained dispensers should be available for consumables.

Yes - However, consumables are not stored in a single designated area because of space constraints, this should be reviewed.

Compliance Heading: 4. 2 .2 Direct patient contact equipment includes:

(65) Commodes, weighing scales, manual handling equipment.

Yes - Some commodes observed were stained on the under-surface and some hoist bases were observed to be dusty.

(68) Patient fans which are not recommended in clinical areas.

Yes - All remaining fans noted should be removed from non-clinical areas, with a cleaning specification developed and implemented in the near future.

(69) Patient washbowls should be decontaminated between each patient, and should be stored clean, dry and inverted. Damaged washbowls should be replaced.

Yes - Compliance was noted in this area.

Compliance Heading: 4. 2 .3 Close patient contact equipment includes:

(72) Trolleys, e.g. chart trolleys, drug trolleys, linen trolleys, shop trolleys, emergency trolleys, suction apparatus, resuscitation equipment i.e. ambubag and mask.

Yes - However, greater attention to detail is recommended, for example, regarding chart trolleys and the rear of cardiac arrest trolley ledges, as these were dusty.

(73) TV, radio, earpiece for bedside entertainment system and patient call bell.

Yes - Greater attention to detail regarding the ledges of television stands is required.

Compliance Heading: 4. 3 .1 Cleaning Equipment & Products (note: while list is not exhaustive, the following compliance is required):

(82) Vacuum filters must be changed frequently in accordance with manufacturers' recommendations—evidence available of this.

No - However, a Quality Improvement Plan is in place.

(89) Equipment with water reservoirs should be stored empty and dry.

Yes - However, some buckets were wet when stored and were not inverted.

(90) Storage facilities for cleaning equipment should be provided in each work area with adequate ventilation, a hot and cold water supply and hand-wash facilities.

No - No designated cleaners' rooms were observed.

(94) Health and Safety policies should be in place for the use of ladders/steps when cleaning.

Yes - A policy was in place, however, this was not available for all areas of hospital; this is recommended.

Compliance Heading: 4. 4 .2 Facilities

(217) Access to the main kitchen and ward kitchens should be restricted to designated personnel i.e. food workers.

No – While there are policies in place for the access to kitchens, unrestricted access was noted. Some ward kitchens provided storage facilities for sterile goods and a drugs fridge was noted in one area.

(219) Ward kitchens are not designated as staff facilities.

Yes - However, the Intensive Care Unit kitchen is shared with staff.

(226) Containers used to store foods shall be made of food grade materials, be in good condition, easy to clean and disinfect.

Yes - plate covers had sticky tape residue on them.

Compliance Heading: 4. 4 .5 Management of Chill Chain in a Hospital.

(240) A Hospital using a cook-chill system should comply with Guidance Note No. 15 Cook-Chill Systems in the Food Service Sector (Food Safety Authority of Ireland) The temperatures of fridges, freezers, cold rooms and chill cabinets shall be capable of maintaining the temperature of foodstuffs.

Yes - This is non-applicable as the hospital does not use a cook-chill method for food preparation.

(241) Ice cream display units can operate at -12 °C as long as it can be demonstrated that the product has been held at this temperature for less than 7 days.

No - No temperature read out dials were observed.

(244) Temperature for food when cooked, held or reheated should comply with I.S. 340:2006 requirements.

Yes - The organisation was compliant in this area.

Compliance Heading: 4. 4 .10 Plant & Equipment

(250) The dishwasher's minimum temperature for the disinfecting cycle should be compliant with I.S.340:2006 requirements and should be monitored regularly. There should be digital readouts on dishwashers.

No - No digital temperature read outs were available.

Compliance Heading: 4. 5 .1 Waste including hazardous waste:

(146) A tracking system should be in place to trace all hazardous waste from generation to disposal and therefore an audit trail is available to trace waste to final disposal.

No - The organisation is encouraged to implement a Quality Improvement Plan.

(149) Inventory of Safety Data Sheets (SDS) is in place.

No - The organisation is encouraged to implement a Quality Improvement Plan.

(151) Waste is disposed of safely without risk of contamination or injury.

Yes - Compliance was noted in this area.

(152) When required by the local authority the organization must possess a discharge to drain license.

Yes - This is not required by the Local Authority.

(253) Personal protective equipment is accessible to all staff involved in the generation, collection, transport and storage of waste.

No - The organisation is encouraged to evaluate the current glove policy. Personal Protective Equipment (PPE's) should be available.

Compliance Heading: 4.5.3 Segregation

(256) Mattress bags are available and are used for contaminated mattresses ready for disposal; mattresses are disinfected.

No - No mattress bags were available.

(159) Sharps boxes are correctly sealed, labelled and stored in a safe environment.

Yes - Compliance was noted in this area.

Compliance Heading: 4.5.4 Transport

(163) Documented processes for the transportation of waste through the hospital which minimizes manual handling of waste (and ensures that segregation of healthcare risk waste from non-risk waste is maintained) are in place.

No - A policy for the external contractor was noted. It is recommended that the organisation develop an in-house transportation policy.

(165) There is a designated person trained as a Dangerous Good Safety Advisor (DGSA) or the services of a DGSA are available to the hospital.

Yes - An external DGSA has been identified.

(166) Drivers of vehicles transporting hazardous waste must be trained in accordance with the ADR Regulations.

Yes - The national contractor had received training.

Compliance Heading: 4.5.5 Storage

(258) Waste receptacles should be sanitised, secure and in a good state of repair when used.

Yes - However, there is no separate area for clean bins for distribution available.

Compliance Heading: 4.5.6 Training

(259) There is a trained and designated waste officer.

Yes - However, training should be provided for the newly designated Waste Officer.

Compliance Heading: 4.6.1 Management of Linen and Soft Furnishings (note: while list is not exhaustive, the following compliance is required):

(172) Documented processes for the management, maintenance and safe handling of linen and soft furnishings throughout the organisation.

Yes - Personal protective equipment (PPE's) should be available for the collection of linen from ward areas.

(174) Clean linen is stored in a designated area separate from used linen (not in sluice or bathroom).

Yes - In the majority, however some shared facilities were noted.

(261) Clean linen store is clean, free from dust and free from inappropriate items.

Yes - The organisation is encouraged to consider the use of washable shelving for storage of linen.

(262) Linen is segregated into categories and in appropriate colour coded bags (i.e. clean/unused linen, dirty/used linen, dirty/contaminated linen).

No - The organisation is encouraged to source appropriate colour coded laundry bags and monitor compliance with this.

(263) Bags are less than 2/3 full and are capable of being secured.

No - Bags observed were overfilled.

(267) Documented process for the transportation of linen.

No - None were available and the organisation is recommended to develop a Quality Improvement Plan in relation to this.

(270) Hand washing facilities should be available in the laundry room.

No - No internal storage area for dirty linen is provided. When this area is provided, it should include hand hygiene facilities.

Compliance Heading: 4. 7 .1 Management of hand hygiene (note: while list is not exhaustive, the following compliance is required):

(189) Clinical hand wash sinks are required in all areas where clinical activities are performed. They should be centrally located and free from obstruction.

Yes - Upgrading of all wash hand sinks in conjunction with the organisation's Quality Improvement Plan (QIP) is recommended.

(190) All sinks should be fitted with washable splash backs with all joints completely sealed.

No - Tiled splashbacks are recommended in conjunction with the organisation's QIP.

(192) Taps should be hands free and should be mixer taps to allow temperature regulation.

No - However, a QIP is in place.

(193) Liquid soap is available at all hand washing sinks. Cartridge dispensers must be single use.

Yes - However, one area with no soap available was noted.

(195) Absorbent paper towels are available at all hand washing sinks. Air dryers should not be recommended.

Yes - However, some dispensers without paper towel rolls were observed.

(204) Hand wash sinks conform to HBN 95. They should not have plugs, overflows and the water jet must not flow directly into the plughole.

No - However, a quality Improvement Plan (QIP) is in place.

(205) General wards should have one sink per 4-6 beds and critical areas should have one sink per 1-3 beds.

No - However, a QIP is in place.

(206) Documented records of mandatory attendance at hand hygiene education and practice is required for all staff members involved in clinical areas. This may be undertaken during hospital induction programme followed by annual updates.

Yes - However, the organisation is encouraged to review the maintenance of records at local level.

5.0 Appendix B

5.1 Ratings Summary

	Self Assessor Team		Assessor Team	
	FREQ	%	FREQ	%
A	1	01.79	3	05.36
B	12	21.43	21	37.50
C	43	76.79	31	55.36
D	0	00.00	1	01.79
E	0	00.00	0	00.00
N/A	0	00.00	0	00.00

5.2 Ratings Details

Criteria	Self Assessment	Assessor	Difference
CM 1.1	C	C	→
CM 1.2	C	C	→
CM 2.1	B	C	↓
CM 3.1	C	D	↓
CM 4.1	C	B	↑
CM 4.2	B	C	↓
CM 4.3	C	C	→
CM 4.4	C	C	→
CM 4.5	C	C	→
CM 5.1	B	B	→
CM 5.2	B	B	→
CM 6.1	C	C	→
CM 6.2	C	C	→
CM 7.1	C	C	→
CM 7.2	C	B	↑
CM 8.1	C	B	↑
CM 8.2	C	B	↑
CM 9.1	C	C	→
CM 9.2	C	C	→
CM 9.3	C	C	→
CM 9.4	C	B	↑
CM 10.1	B	C	↓
CM 10.2	C	B	↑
CM 10.3	B	B	→
CM 10.4	C	B	↑
CM 10.5	C	C	→
CM 11.1	B	B	→
CM 11.2	C	C	→
CM 11.3	C	B	↑
CM 11.4	C	C	→
CM 12.1	B	B	→

CM 12.2	C	C	→
CM 13.1	C	C	→
CM 13.2	C	C	→
CM 13.3	C	C	→
CM 14.1	B	B	→
CM 14.2	C	C	→
SD 1.1	C	C	→
SD 1.2	C	C	→
SD 2.1	C	C	→
SD 3.1	C	C	→
SD 4.1	B	B	→
SD 4.2	B	A	↑
SD 4.3	C	A	↑
SD 4.4	A	A	→
SD 4.5	C	B	↑
SD 4.6	C	B	↑
SD 4.7	C	B	↑
SD 4.8	C	B	↑
SD 4.9	C	C	→
SD 5.1	C	C	→
SD 5.2	C	B	↑
SD 5.3	C	B	↑
SD 6.1	C	C	→
SD 6.2	B	C	↓
SD 6.3	C	C	→