



COUNCIL FOR MEDICAL SCHEMES

**FINAL DOCUMENT  
RECOMMENDATIONS  
OF THE COMMITTEE ON  
STANDARDISATION OF DATA AND BILLING  
PRACTICES**

**FEBRUARY 2003**

## **ACKNOWLEDGEMENTS**

The Council for Medical Schemes would like to thank all the participants who gave their time freely in the development of this document. We would like to thank specifically all the Committee members and sub committee members who contributed tremendously to the development of this document. In addition we would like to extend our sincere thanks and appreciation to the Chairpersons of the various subcommittees and their teams for bringing everything together into a single thematic document while at the same time ensuring that all the different voices were not only heard but also represented.

We also appreciate the wonderful inputs from medical scheme administrators and representative associations of healthcare providers and other stakeholders. Their enthusiastic contribution has enriched this document tremendously.

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## **EXECUTIVE SUMMARY**

There is general consensus in the health care environment that the success of the health care system (public and private) is dependent on the ability to consolidate information from a variety of sources. It is recognised that this ability is dependent on the standardisation of health information.

In the context of the South African healthcare system and any healthcare system in that case, health information system standards provide a number of benefits that includes but not limited to: a structured, systematic, consistent representation of health information, the capability to consolidate health information from different sources, defined formats for transferring information within and between organisations, improved health information quality, capability to perform quantitative analyses, improvement and timeliness of data and efficiency in the delivery of healthcare services and reimbursement of health care providers.

In the private sector, the introduction of the Medical Schemes Act 131, of 1998 necessitated the development of health information standards. This was given an added impetus by the need to monitor trends in the industry, poor data collection practices, poor billing practices and the lack of standards for health information.

The Council for Medical Schemes, at the request of the Minister of Health and also in line with the requirements of the Medical schemes Act investigated the possibility of the introduction of health standards in the industry. The process took place over a period of a year where meetings were held with various stakeholders both in the public and the private sector. The primary focus of the Committee was on diagnosis and procedure codes, pharmaceutical codes, electronic standards for data transmission and privacy and confidentiality standards.

The meetings culminated in the development of recommendations that are presented hereunder. It was recommended that ICD 10 be adopted as a diagnosis coding standard. The coding system will also be useful for PMBs either through the development of appropriate codes or a cross walk. The committee further recommended the adoption of CPT4 coding system for procedures, however in light of developments around the tariff structures; it was felt that alternative systems need to be investigated.

In terms of pharmaceutical codes, it was recommended that the current status quo remains where the public sector continues using the National Stock Numbering systems while the private sector use the NAPPI. However it was further recommended that efforts be made to work towards a common pharmaceutical standard in the country for use in both the public and private sector.

The Committee recognised problems around electronic transmission of data particularly in view of the divergent IT systems that are used in the public and private sector and within these sectors. This created serious problems of interoperability that needed to

be addressed for purposes of efficiency and sound health care delivery and reimbursement. The committee recommended the investigation of HL 7 with a view for possible adoption. There were also recommendations around the privacy and confidentiality of data of beneficiaries.

It needs to be mentioned at this point that in light of developments in the industry, it becomes imperative that a criteria for the selection and adoption of standards be put in place for the entire country. Beyond this systems need to be put in lace to oversee the implementation of such standards, monitoring, version control, training issues and licensing.

The criteria should include among others, such principles as public interest considerations, free access by the users and non proprietorship of standards.

## **1. INTRODUCTION**

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The introduction of the Medical Schemes Act 131, of 1998 has brought with it, a number of new requirements to the medical schemes industry. In addition, the Act would need to be monitored regularly in order to evaluate its impact on the industry and beneficiaries and where necessary to recommend legislative reforms. In order to do this, information becomes necessary and its quality important.

The new legislation also introduced new requirements to health care providers particularly with regards to the type and quality of information they submit to medical schemes for purposes of reimbursement. Regulation 5(f) of the medical schemes act of 1998 requires that all accounts or statements from health care providers must contain the relevant diagnostic, and such other item code numbers that relate to such relevant health service.

In the year 2000, the Council for Medical Schemes held separate meetings with providers and funders in an effort to address problems experienced by healthcare providers with regards to payment of claims. The two parties identified as important the need for greater standardisation of data collection, IT systems, and billing practices as key to resolving many problems afflicting the industry. There were also calls for greater uniformity of coding for diagnoses, procedures, pharmaceutical products and electronic messaging that would facilitate better management and more efficient and accurate billing system.

At the beginning of last year, the Council conducted a survey of the industry in order to determine the type of information medical schemes was collecting and the quality thereof. This study revealed serious gaps in the type and quality of data that medical schemes were collecting. In addition there was a lack of standardisation of the data collected.

The general consensus in the industry has been that Medical schemes and administrators are involved in financial and clinical risk management. Sometimes, this is done based on incomplete information. Currently, the medical inflation rate is twice the consumer price index. This often translates into increased contribution increases that are not sustainable. This calls for improved efficiency in the financing and delivery of health care. In order to do this, good and accurate information are necessary ingredients for successful clinical and financial risk management.

It is also agreed that a serious rethink needs to take place among industry players to begin to take stock of patterns of utilisation of services and the level of quality received by beneficiaries. It is also important to explore alternative reimbursement methods.

In an effort to address all the issues and concerns of the various stakeholders and to improve efficiency in the medical schemes environment, an advisory Committee on Standardisation of data and billing practices was formed to recommend to the Council, ways to improve and standardise data collection practices in the industry. The

Committee was constituted of a spectrum of stakeholders from the private health industry as well as the National Department of Health.

The focus of the committee was divided into five primary areas, namely: the development of appropriate diagnosis and procedure codes, recommendation of a pharmaceutical code, formulation of a framework for electronic messaging, recommendations on privacy, confidentiality and access to health information and the development of a minimum dataset that all medical schemes should submit to the Council regularly.

Each focus area formed a subcommittee of specialists to develop recommendations that would then be compiled into a manual for public discussion before adoption by the Council. This process led to monthly meetings and a string of other meetings by the various subcommittees that lasted for a year.

While the committee was small in terms of the number of direct participants, there was however wide consultation with many stakeholders through subcommittee meetings particularly among those with expertise with regards to the focus of the different subcommittees. In certain instances individuals were co-opted into the subcommittees while others participated as observers at the meetings.

The primary objective of the committee was to develop recommendations for appropriate coding standards for diagnosis, treatment, pharmaceutical products, electronic messaging and privacy and confidentiality of beneficiary information. These recommendations form the basis of a manual of standards for implementation in the healthcare industry.

There are challenges that lie ahead in terms of addressing some of the concerns from the public sector which revolves around readiness and resources. These are legitimate issues that would need to be addressed sooner rather than later through continues interaction with the National Department of Health.

**It is important to note that this document is not intended for purposes of teaching a person to understand the various coding systems; however it makes recommendations for the types of coding systems to be used in the industry. Detailed information on the various coding systems mentioned in this document could be found from the respective license holders in the country.**

## **2. TERMS OF REFERENCE OF COMMITTEE**

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To develop recommendations to the Council for Medical Schemes for the setting of minimum standards for data collection and billing practices in the private health sector, to facilitate:

1. improved regulatory oversight,
2. better monitoring of the impact of the Medical Schemes Act,
3. improved risk management by medical schemes,
4. improved quality in health service provision,
5. greater efficiency in the administration of medical schemes and payment of claims, and
6. improved integration, planning and interface with the public sector.



### **3. DIAGNOSIS AND PROCEDURE CODES**

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Subcommittee chairperson: Dr Brian Ruff

#### **3.1 OBJECTIVES**

1. to review work by the Private Health Information Standards Committee (PHISC) in terms of recommendations,
2. to come up with recommendations for an appropriate coding system,
3. to develop an implementation plan,
4. to develop standards for claim forms for providers, and
5. to explore the possibility of the inclusion of Prescribed Minimum Benefits (PMB) codes.

##### **3.1.1 IMPORTANCE OF CODING**

The quality and integrity of data is increasingly becoming important in the health care industry as health information management evolves from record management to data management. Around the world, coding systems now form an essential part of the health information system. They enable the description of diseases, medical and surgical procedures, reasons for visits, severity of illness, drugs utilised, laboratory tests, pathology specimens, patient outcomes and a variety of other aspects of health care services.

Coding is important in that it allows for easy storage and retrieval of information for patient care, research, performance improvement, and planning and facility management. It also enables fair reimbursement for health care services provided and communicates in a predictable, consistent and reproducible manner. In addition, coding enable reliable communication about healthcare data among many participants in the health care industry.

#### **3.2 INTERNATIONAL CLASSIFICATION OF DISEASES (ICD)**

There are many coding systems for diagnosis and procedures around the world. Some of these coding systems are country specific. However, many countries tend to use the ICD or its derivatives. This system was developed as collaboration between the World Health Organisation (WHO) and 10 international centres in order that medical terms reported by medical and other personnel can be grouped together for statistical purposes. The ICD was developed out of a need for a standardizing classification concept and terminology in the medical field. It is designed to promote international comparability in the collection, processing, classification, and presentation of morbidity and mortality statistics. The reported conditions are translated into codes through the use of classification structures and the selection and modification rules contained in the applicable revision of ICD, published by the WHO.

The ICD is revised periodically (almost every 10 years) to incorporate changes in diagnostic terminology and advances in the medical field. WHO is currently in its tenth

edition of the ICD. This differs from the ninth edition in several ways although the overall content is similar. The ICD 10 differs from the ICD 9 in the following ways:

- ICD 10 printed in three volume sets- as opposed to two-volume set
- It has alphanumeric categories rather than numeric categories
- Some chapters have been re-arranged, some titles have changed, and conditions have been regrouped
- Minor changes have also been made in the coding rules for mortality

The ICD is also used for a variety of other purposes including but not restricted to standardizing definitions: e.g. underlying cause of death, live births, maternal deaths and many others.

In South Africa, this coding system is currently being used by certain healthcare funders and health service providers for the classification of diseases for purposes of clinical risk management, claims processing and benefit design. It is also used in government for classification of diseases and recording of causes of death.

### **3.3 PROCEDURE CODES**

#### **3.3.1 CURRENT PROCEDURAL TERMINOLOGY (CPT) CODES**

The American Medical Association (AMA) describes CPT codes as a listing of descriptive terms and identifying codes for reporting medical services and procedures. The primary purpose of the CPT is to provide a uniform language that accurately describes medical, surgical, and diagnostic services, and thereby serve as an effective means for reliable nationwide communication among physicians, patients and third parties. The CPT codes can also be used for claims processing and the development of guidelines for medical care review. The CPT codes are revised every year by the CPT advisory panel.

The CPT identifying code is a five digit code which is linked to a descriptor comprising of approximately 7000 items. The items are divided into 6 sections namely; evaluation and management services, surgery, medicine, pathology and laboratory, radiology and anaesthesia.

The South African version of the CPT is known as the Complete CPT for South Africa (CCSA) and is based on the original CPT codes together with South African specific codes. The CCSA incorporates the Resource Based Relative Value Scale (RBRVS) which provides a guideline for reimbursement of doctors' services. The South African Medical Association (SAMA) is the license holder and custodian of CPT codes in South Africa. SAMA holds the right to maintenance, modification and distribution of CPT. The contract between SAMA and AMA allows it to publish the complete CPT coding system and to makes changes to the information to accommodate local requirements.

When a health care provider wants to submit a bill to a funder using CPT codes, he will need to use the CCSA codes for the correct definition of the procedure and its relative value units. Further information on CPT is available from the SAMA.

Effective coding with CPT requires a synthesis of resources, payer directives and official coding guidelines. This is done in order that an appropriate reimbursement is obtained while preserving data quality and uniformity in reporting.

### **3.4. DIAGNOSIS RELATED GROUPS (DRG)**

This is a classification system that groups inpatient hospital stay on the basis of the use of resources taking into account the diagnosis and treatment of the patient. The DRG classification is determined by a grouper program that is based on diagnoses and procedure codes. Other factors that are considered in the assignment of a DRG are the patient's age, sex, length of stay, etc. DRGs are used primarily for billing practices.

#### **3.4.1 DEFINITIONS**

##### **a) Principal diagnosis**

The Principal Diagnosis is necessary to assign every patient to a Diagnosis Related Group. The South African Healthcare industry has defined and agreed on an acceptable definition of a "Principal Diagnosis" for the purpose of resource allocation.

The Principal Diagnosis is typically "the clinical condition that is ultimately determined to have caused a patient's admission to hospital. It is the diagnosis that is established after investigation and diagnostic tests and is the condition that usually explains resource usage and extended length of stay".

##### **b) Co morbidity**

A co morbidity is a condition the patient had in addition to the principal diagnosis prior to admission to hospital. This condition is expected to increase the length of stay of the patient. A co-morbidity cannot be used as a principal diagnosis;

##### **c) Complication**

A complication is a condition arising after a patient has been admitted to hospital. This condition is expected to increase resource utilization. A complication can become the principal diagnosis, despite it not being the cause of admission.

### ***Important Footnote***

The definition of principal diagnosis is applicable for the purpose of Grouping; however the definition of a Principal Diagnosis can change if used for statistical, disease management and epidemiological purposes. This means that systems need to be adapted to deal with the change in definitions.

### **3.4.2 DISPOSAL CODES**

These are codes that are used to indicate where a hospital patient is discharged to. the disposal code may affect reimbursement.

**TABLE 1. DISPOSAL CODES LIST**

	<b>DESCRIPTION-3M GROUPE</b>	<b>New Description</b>
01	HOME OF SELF CARE	HOME OR SELF CARE
02	DISCH/TRANS TO ANOTHER SHORT TERM GENERAL HOSPITAL	DISCH/TRANS TO ANOTHER SHORT TERM ACUTE HOSPITAL
03	DISCH/TRANS TO SKILLED NURSING FACILITY	STEPPDOWN
04	DISCH/TRANS TO INTERMEDIATE CARE FACILITY	NOT FOR USE IN SA
05	DISCH/TRANS TO ANOTHER TYPE OF INSTITUTION	DISCH/TRANS TO ANOTHER TYPE OF INSTITUTION
06	CARE OF HOME HEALTH CARE ORGANISATION	HOME NURSING
07	LEFT AGAINST MEDICAL ADVISE	REFUSED HOSPITAL TREATMENT
08	HOME IV SERVICE	HOME IV SERVICE
10	NEONATE AFTER CARE (AP 11.0 AND HIGHER, APR 12.0)	NEONATAL ICU
13	TERTIARY AFTER CARE (AP 11.0 AND HIGHER, APR 12.0)	NEONATAL HIGHCARE
20	EXPIRED	EXPIRED (DIED)
30	STILL A PATIENT	STILL AN INPATIENT

### **3.4.3 PLACE OF SERVICE CODES (POS)**

These are codes that are used for claims submission purposes by providers to identify where a service was rendered. POS are numeric codes that provide a description of a range of facilities used by providers. as this is an American developed list, efforts were made to custom design it to local conditions and facilities.

Five unassigned CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS) codes have being used for describing services that apply to the South African Health sector. These codes will therefore be unique to South Africa and at present do not appear on the original American list.

Permission to use the place of delivery codes was requested from the CMS. CMS was formerly known as the Health Care Financing Administration (HCFA).

## 2. PLACE OF SERVICE CODE LIST

<b>CMS CODE</b>	<b>CMS DESCRIPTION</b>	<b>NEW DESCRIPTION</b>
21	INPATIENT HOSPITAL	INPATIENT HOSPITAL
51	INPATIENT PSYCHIATRIC FACILITY	INPATIENT PSYCHIATRIC HOSPITAL
61	COMPREHENSIVE INPATIENT REHABILITATION FACILITY	INPATIENT REHABILITATION FACILITY
11	OFFICE	OFFICE
12	PATIENT'S HOME	HOME
22	OUTPATIENT HOSPITAL	HOSPITAL OUTPATIENT FACILITY
23	EMERGENCY ROOM – HOSPITAL	CASUALTY/EMERGENCY ROOM
24	AMBULATORY SURGICAL CENTER	DAY CLINIC / HOSPITAL
25	BIRTHING CENTER	BIRTHING CENTER
26	MILITARY TREATMENT FACILITY	MILITARY TREATMENT FACILITY
31	SKILLED NURSING FACILITY	STEPDOWN FACILITY
32	NURSING FACILITY	NURSING HOME
33	CUSTODIAL CARE FACILITY	CHRONIC PSYCHIATRIC FACILITY
34	HOSPICE	HOSPICE
41	AMBULANCE – LAND	AMBULANCE - LAND
42	AMBULANCE - AIR OR WATER	AMBULANCE - AIR OR WATER
50	FEDERALLY QUALIFIED HEALTH CENTRE	NOT FOR USE IN SOUTH AFRICA
52	PSYCHIATRIC FACILITY PARTIAL HOSPITALISATION	ACUTE PSYCHIATRIC FACILITY, PARTIAL HOSPITALISATION
53	COMMUNITY HEALTH MENTAL CENTER	OUTPATIENT MENTAL HEALTH CLINIC
54	INTERMEDIATE CARE FACILITY/METALLY RETARDED	NOT FOR USE IN SOUTH AFRICA
55	RESIDENTIAL SUBSTANCE ABUSE TREATMENT FACILITY	SUBSTANCE ABUSE REHABILITATION CENTRE
56	PSYCHIATRIC RESIDENTIAL TREATMENT CENTER	HALFWAY HOUSE
62	COMPREHENSIVE OUTPATIENT REHABILITATION FACILITY	OUTPATIENT REHABILITATION
65	END STAGE RENAL DISEASE TREATMENT FACILITY	DIALYSIS CENTRE
66	UNASSIGNED CODE	RADIOTHERAPY TREATMENT CENTRE *1
68	UNASSIGNED CODE	CHEMOTHERAPY TREATMENT CENTRE *2
70	UNASSIGNED CODE	ONCOLOGY CENTRE
71	STATE OR LOCAL PUBLIC HEALTH CLINIC	STATE OR LOCAL PUBLIC HEALTH CLINIC
72	RURAL HEALTH CLINIC	RURAL HEALTH CLINIC
81	INDEPENDENT LABORATORY	PRIVATE LABORATORY
84	UNASSIGNED CODE	INDEPENDENT PHARMACY
85	UNASSIGNED CODE	HOSPITAL PHARMACY
99	OTHER UNLISTED FACILITY	OTHER UNLISTED FACILITY
UNASSIGNED CODES = 00, 02 - 10, 13 - 20, 27 - 30, 35 - 40, 43 - 49, 57 - 60, 63, 66 – 70, 73 - 80, 82 – 98		

**\*1: Where a centre acts EXCLUSIVELY as a provider of Radiotherapy, this code will be used, ELSE CODE 70 is to be used (for Oncology centre where both modes of treatment are provided together).**

**\*2: Where a centre acts EXCLUSIVELY as a provider of CHEMOTHERAPY, this code will be used, ELSE CODE 70 is to be used (for Oncology centre where both modes of treatment are provided together).**

### **3.5 PRESCRIBED MINIMUM BENEFITS (PMB)**

Prescribed Minimum Benefits are a set of statutory benefits that all registered medical schemes in the country has to offer. The primary objective for PMBs; (1) *"to avoid incidents where individuals lose their medical scheme cover in the event of serious illness and the consequent risk of unfunded utilisation of public hospitals"*; and (2) *"to encourage improved efficiency in the allocation of private and public health care resources"*.

The PMBs are new to the medical schemes environment and legislation allows for them to be reviewed every two years for the following reasons:

- Inconsistencies or flaws in the current regulations
- The cost effectiveness of health technologies or interventions
- Consistency with developments in health policy
- The impact on medical scheme viability and its affordability to members

There are more than 300 PMBs consisting of a diagnosis and treatment combination. These conditions currently do not have a coding system by which they can be identified. Each medical scheme or administrator is free to interpret it in any way they choose. This often results in poor monitoring and evaluation of PMBs.

Some schemes do not routinely collect data on PMBs as there is no standard coding system for them in the industry. As a result, they are not able to isolate PMB conditions from non PMB conditions leading to poor reporting. An appropriate and accurate coding system needs to be developed to enable schemes to manage PMBs.

It is important to develop a crosswalk or adopt a coding system that would enable medical schemes to flag PMBs for regular monitoring of utilisation and cost.

### **3.6 PRACTICE MANAGEMENT SOFTWARE (PMS)**

One of the most important aspects in the implementation of a coding system is the IT programme. In South Africa, more and more providers are turning to electronic submission of claims. These providers in the country use different practice management systems with different capabilities. At a meeting with PMS companies, it was reported that most if not all of them were compliant with the new requirements for data provision.

A Committee of these companies have been setup to facilitate communication between themselves and other stakeholder. This committee is important in that it will enable representation in discussion around trends in coding system in the industry.

## **4. PHARMACEUTICAL CODING**

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Subcommittee chairperson: Mr Patrick Matshidze

### **4.1 OBJECTIVE**

To develop a common approach to coding of pharmaceutical products.

### **4.2 Background**

There is a need for the country to adopt a code to identify pharmaceutical products used in the private and public sector. The importance of a coding system in the health sector cannot be overstated. It would facilitate the transmission of pharmaceutical information in a uniform manner between funders, providers and regulators.

The ideal pharmaceutical coding system would be one that is accurate and up to date. In order to accomplish this, consultations with all the stakeholders were held over a period of time to discuss about pharmaceutical coding. It was felt that the code should provide minimum data which satisfy the needs of various stakeholders including; medical schemes, administrators, the Council for Medical Schemes, providers, government and suppliers, among others.

The benefits of a uniform coding systems are enormous and include the evaluation of drug utilisation, identification problems, reduction of errors, improved efficiency, monitoring of outcomes of the interventions and assessment of pharmaceutical products consumption in the healthcare environment, electronic reporting of drug reactions, data analyses for research and healthcare administration and development and maintenance of decision support systems.

**The coding system must be guided by the following fundamental features:**

- It must be a unique identifier of pharmaceutical products appropriate for local conditions and international comparison
- It must provide a description of the product
- It must provide a minimum data set with core data fields
- It must have a general therapeutic and pharmacological classification scheme

### **4.3 SCOPE OF COVERAGE**

It would be important that product files be established to include all the products that are used in the industry as well as new ones. The following is the intended scope of coverage of the coding system.

1. the ability to cover all the products currently available in the industry: branded products, generics and complementary medicines, where possible
2. the ability to cover new pharmaceutical products once approved by the Medicines Control Council

3. the unique identification of products at different levels including, form, strength, pack size, etc
4. the ability to cover consumables and devices and/or surgical products
5. feasibility to create and maintain the system economically
6. the accessibility of the coding system to by all those who use it

The coding system should ideally allow for cross mapping with other coding systems (diagnosis, etc) to enable the evaluation of outcomes of drug utilisation in addition to the determination of volumes and value.

#### **4.4 DATA QUALITY**

The coding system will have a positive impact on the industry as it could prevent errors in the recording of pharmaceutical products dispensed; improve data accuracy and completeness thus improving data quality.

In addition, a regular update of both the product file and the price file will enhance the integrity of the data.

#### **4.5 CODING SYSTEMS CURRENTLY IN USE IN THE HEALTH SECTOR**

There are currently multiple coding systems for pharmaceutical product in use in the health sector. In certain instances the public and the private sector uses different coding systems. In other instances, individual organisations use their own home-grown systems. This does provide the functionality required by the various entities or systems however it does not augur well for standardisation of information in the country and for efficiency.

##### **4.5.1 PRIVATE SECTOR PHARMACEUTICAL CODING SYSTEM**

The National Pharmaceutical Pricing Index (NAPPI) codes are widely used in the private healthcare industry. The NAPPI is a unique identifier of pharmaceutical and surgical products. Currently, the NAPPI covers approximately 4.7 million lives, which equates to 67% of total medical scheme beneficiaries.

The NAPPI codes are a property of Medikredit. Medikredit has developed a consolidated product file containing both the surgical and non-surgical products in the industry. They are responsible for the maintenance, update, publication and distribution of this file. The product file contains information relating to approximately 68 000 products of which around 11 000 are non surgical, covering pharmaceutical and medicinal products, and the remainder are surgicals, consumables, and medical appliances.

The NAPPI codes provides information on the manufacturer of the product, and where applicable, registration, strength and dosage of the product. The NAPPI also covers certain complementary medicine product.



Concerns were raised by some stakeholders on the proprietary nature of this coding system. Medikredit undertook to make the NAPPI codes accessible to all those who need to use them. They are now freely available to all users.

#### **4.5.2 PUBLIC SECTOR PHARMACEUTICAL CODING SYSTEM**

The public sector currently uses the National Stock Number (NSN), which is a unique identifier of pharmaceutical products: medicines (ethicals and generics), surgicals, injectables and syringes. This coding system is primarily for administrative purposes and is not supplier. When combined with a Comed code, which describes the characteristics of a drug, it allows for the identification of drugs according to active ingredient and pack size. Essentially, a drug would have the same code even when it is from different manufacturers. This coding system can also be cross mapped to the Anatomic Therapeutic Classification (ATC) system. This system divides drugs into different groups according to the organ system on which they act and/or therapeutic and chemical characteristics.

In some countries, ATC are also used to determine the total sales of pharmaceutical product deliveries to pharmacies and hospitals. This practice is sometimes problematic particularly in instances where products have more than one use as this might affect the size of specific ATC groups. Differences are likely to occur depending on whether data is for hospitals, wholesalers, pharmacies or other sources.

#### **4.8 THE EAN PHARMACEUTICAL CODING SYSTEM**

Pharmaceutical Electronic Standards Authority (PESA) is involved in an initiative to introduce a new pharmaceutical coding system called the EAN (European Article Number).

The EAN is an international standard that is unique for pharmaceutical products. It can be used to identify a product's manufacturer, active ingredients, strength, and form, pack size, etc. It is a standard and controlled numbering system that is already in use in many countries around the world. I also cater for generic products.

##### **Inputs from:**

National Department of Health, Pharmaceutical Manufacturers Association, Pharmaceutical Society of South Africa, the EAN South Africa, Medicines Control Council The Pharmacy Council, Community Pharmacy Society, Medical Schemes, Medical Schemes Administrators, Switching Companies  
Pharmaceutical companies

##### **Other sources of information**

HIPAA  
US Federal Drug Agency  
PHISC Minutes

## **5. ELECTRONIC MESSAGES**

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Subcommittee chairperson: Ms Anne Kilian

### **5.1 OBJECTIVE**

to develop a framework for electronic message transmission.

### **5.2 A BACKGROUND TO STANDARDS AND MESSAGING**

The key issue being addressed by this sub-committee is how healthcare organisations (HCO) in South Africa will apply standards to achieve robust and maintainable electronic communications between providers and funders.

In order to exchange information between computer applications, the applications need to speak a common "language". The applications must understand:

- what business transaction is taking place – the message;
- what bits of data are being exchanged – the data elements or fields;
- how these data elements are structured – the schema;
- When to expect a transaction, from whom that transaction would be received and what response is required – the choreography.

In order to achieve the above, standards development organisations (SDOs) have evolved. These organisations facilitate and drive the development of standard messages either within their vertical industry or across industries. In the Healthcare industry, HL7 is the only international SDO. In South Africa, the technical working group of Private Health Information Standards Committee (PHISC) is the formally recognised SDO for private healthcare.

An SDO will use syntax to define and build the messages. This syntax could be X12, UN EDIFACT, XML. (Note that X12 and UN EDIFACT are standards bodies as well). Up until recently, PHISC only facilitated discussion on the UN EDIFACT based messages. Recently however, they embarked on a process to redevelop these messages using the XML syntax. HL7 has used a proprietary format in version 2.4 and lower. Version 3 will be using the XML syntax. The draft format of version 3 has been released. It is going through a series of ratifications and it is expected that it will be available for use in February 2002. Gartner predicts that by 2005, 90% of all new proposed standards will be based on the XML syntax (90% probability).

Dealing with the jumble of message formats plus paper introduces additional costs into the healthcare system. A study done by the Workgroup of Electronic Data Interchange (WEDI) in the USA, released a report that documented savings of \$73 billion if the healthcare industry would standardise on the most common set of administrative and financial transactions.

### 5.3 HEALTH LEVEL 7

HL7 stands for Health Level Seven and refers to the top level (7<sup>th</sup>) of the communication model of the International Organisation for Standardisation (ISO) for interconnection of open systems. HL7 is an application standard.

HL7 develops the industry semantics for healthcare at an international level and with a far wider scope than PHISC. "Industry semantics" refers to the process (i.e. the sequence of electronic interactions that comprise a business interaction) and the content (i.e. a definition of the data elements that express the business content of a specific interaction). Many software providers have incorporated the HL7 standards into their applications. Internationally, HL7 has almost completely penetrated the healthcare industry.

In the USA, HL7 is a legally established SDO accredited by the American National Standards Institute (ANSI). In 1998 an independent survey showed that HL7 had fully penetrated the US hospital market, was being used in more than 80% of hospitals and its usage was planned in a further 13.5%. In large hospitals (400+ beds) the penetration rises to 95% <sup>1</sup>. In the USA HIPAA regulations (Health Insurance Portability and Accountability Act) require all healthcare players to use HL7 v.2 in conjunction with X12 for passing data between providers and payers. In Australia, the National Health Information Standards Plan (NHISP) is advocating the use of HL7 (v2.x and V3) for messages that carry clinical information, and UN EDIFACT for claim messages (including eligibility transactions).

#### **Gartner's predictions:**

- By 2003 - more than half of all new HL7 interfaces worldwide will be based on v.2 (80% probability)
- By 2006 – 90% of all new USA standard based healthcare interfaces will be based on HL7 v3

### 5.4 CRITICISMS OF HL7

There is currently not consensus on the adoption of HL7 for use in the South African health environment. A summary of some of the issues raised is given below:

*Criticism:* HL7 is Hospital centric and will not support the requirements of other industry players

*Response:* HL7 started off in the hospital area and hence has had a hospital centric approach. In the past few years however its application has spread to pharmacies, doctors, pathologists and radiologists for events OUTSIDE of a hospital visit.

*Criticism:* HIPAA and NHISP have not regulated the HL7 claim format but have rather selected X12 and UN EDIFACT respectively

*Response:* The primary reason for this is that in pre V3 releases, HL7 did not

support the financial and administration component very well. This has been addressed in V3, but the version was not available at the time the legislation was passed.

*Criticism:* HL7 is for exchange of clinical information, not of financial and administrative information:

*Response:* The focus of HL7 was specifically on clinical messaging. In V3, HL7 have attempted to rectify this and have included the X12 claim message content in the V3 release, using the XML syntax. In addition, the local chapters of Canada, Australia, Holland and Germany have initiated projects and their work is available to other affiliates.

*Criticism:* Why are HL7 affiliates in Canada, Australia, Holland and Germany initiating projects to create standards for claims and other country specific standards – HL7 allows the flexibility for local chapters to drive development of new messages and motivate changes to existing messages. It also allows for local chapters to extract and publish a local subset of the HL7 messaging standard.

*Criticism:* Messages need to be developed locally because of the nuances of the South African healthcare industry – The HL7 messages allow for localisation.

*Response:* Messages need to be developed locally because HL7 takes too long to ratify and publish a new version – Activities in local chapters show that if there is a pressing need for a message not defined in HL7, the local chapter can drive the development of such a message. Delays therefore, in ratifying messages at a global level should not compromise burning issues in local chapters.

## **5.7. REFERENCES:**

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2. A Common Sense Approach to HIPAA – 15 March 2001, Matthew Duncan, Wes Rishel, Kenneth Kleinbery, Kim Klein (Gartner)
3. HL7 vs. XML Around the World – 31 January 2001, Jim Klein and Wes Rishel (Gartner)
4. XML and the Evolution of E-Commerce Standards – 17 February 2001, Carol Rozwell (Gartner)
5. Healthcare B2B E-Commerce: Tangible Benefits in Reach – 4 October 2001, Michael Davis (Gartner)
6. Australian Healthcare Standards May Be a Model for US – 9 July 2001, Michael Davis, Wes Rishel (Gartner)
7. Addressing Healthcare Security and Privacy Risks – 13 June 2000, Matthew Duncan, Vic Wheatman (Gartner)
8. Models of Secure Messaging Implementation – 4 May 2001, Joyce Graff (Gartner)

9. HIPAA Security Advice for Small and Midsize HCOs – 20 October 2000, Wes Rishel, James Browning (Gartner)
10. Public Key Infrastructure (PKI): Overview – 11 October 2001, Kristen Noakes-Fry (Gartner)
11. British Standard : Information Technology - Code of Practice for Information Security Management
12. Information Security Forum – The Standard for Information Security

**INTERVIEWS CONDUCTED:**

1. PHISC – Jenny Bayley (Chairperson, Messaging Sub-Committee)
2. Healthbridge – Paulo dos Santos (CIO)
3. HL7 – Graham Andersen (CEO HL7)
4. DHS – Peter Coetsee

## 6. PRIVACY AND CONFIDENTIALITY

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Subcommittee Chairperson: Elsabe Klinck (succeeding Dr Pino Mavengere)

### 6.1. OBJECTIVE

to develop strategies for maintaining confidentiality in any contract entered into by medical schemes

#### 6.1.1 DEFINITIONS:

**"health care role player"** refers to medical schemes, administrators, service providers, intermediaries and their employees, governing bodies, trustees and Boards of Directors.

**"personal or health information"** refers to all information that is personal or could be re-linked to a particular person or group and that pertains to the health and/or health care, treatment, diagnosis, tests, procedures, stay in health care facilities, and any other related health care information of any person or group. It includes any record that contains these types of information, irrespective of its format or type.

### 6.2 PRINCIPLES

**Principle 1:** All parties dealing with patient health care and personal information have to take into account relevant legislation, such as the Constitution of the RSA of 1996, the Medical Schemes Act of 1998, the Promotion of Access to Information Act of 2000 and specific provisions contained in health- and health care legislation.

**Principle 1.1:** Information may be disclosed by a service provider to a medical scheme in execution of a managed care agreement as provided for in the regulations to the Medical Schemes Act of 1998. Where such disclosure is made to an administrator or any third party on the basis of a contract between the scheme and such administrator or third party in terms of this specific regulation, the administrator or third party is bound by the same provisions as the scheme. Access to patient information is limited in scope by the exact provisions of the contract between the managed care organisation and the scheme. This information should not be passed on to any other department within that organisation, scheme or administrator which does not deal with managed care without the consent of the Board of Trustees.

**Principle 1.2:** Administrators and intermediaries are obliged to keep all information and material in their possession and relating to its duties *vis à vis* a medical scheme and/or service provider, confidential and are bound by the same principles governing the conduct of the

scheme and/or service provider in relation to patient information confidentiality and disclosure.

**Principle 1.3:** Any third party request for information is to be dealt with in terms of the Promotion of Access to Information Act of 2000.

**Principle 2:** For all uses and disclosures of health information, health care organisations, providers, administrators and intermediaries (herein hereafter "health care role players") should remove personal identifiers consistent with maintaining the usefulness of the information, unless legislation authorises specific personalised disclosures. Nothing prevents the compilation and/or manipulation of anonymous information for the purposes of financial- or other planning, for risk calculation or for statistical purposes, related to the core business of the entity in possession of the information. The role player compiling and/or manipulating such information lawfully owns such information.

**Principle 3:** Privacy protections should follow the data, irrespective of the number of intermediaries between the patient, as initial provider of the information, and any final destination. This also applies to electronic messaging.

**Principle 4:** An individual should have the right to access his or her own health information, as regulated by the Promotion of Access to Information Act of 2000 and other relevant legislation, and the right to supplement such information.

**Principle 5:** Health care role players should, in effecting their duties in terms of section 57(4)(i) of the Medical Schemes Act, establish policies, procedures and review mechanisms regarding the protection of confidentiality, as well as the collection, use, and disclosure of health information.

**Principle 6:** Individuals should be given notice about the (possible) uses, purposes and disclosures of their health information in the chain of health care and health care financing. Individuals have to be informed about their rights with regard to that information. This should be done at the point of application for medical scheme membership. The information should be used for claims processing, application of benefit design and the ability of scheme to monitor compliance.

**Principle 7:** Health care role players should implement security safeguards for the storage, use, and disclosure of health information, irrespective of the format of such information.

**Principle 8:** Personally identifiable health information should not be disclosed without patient authorisation, except in circumstances authorised by law or with the patient's specific, full and informed consent.

**Principle 8.1:** Informed consent means that the patient or member should know the reasons why the disclosure is necessary (e.g. for the execution of duties in terms of a specific section of the Medical Schemes Act on, for example, waiting periods, and/or a specific regulation). The patient should also know and understand the implications such disclosure for him or her in terms of health care delivery and -financing. Health care role players are encouraged to formulate the various purposes for which private information is required or should be disclosed, and whether such are authorised by legislation or whether specific patient consent/member is required.

**Principle 8.2:** Existing legal rules in terms of consent by minors under the age of 14 and persons incapable of consenting to a disclosure have to be abided by.

**Principle 8.3:** The same rules of confidentiality and consent to disclosure apply to dependants and steps have to be taken to ensure sufficient protection of dependant/ beneficiary confidentiality.

**Principle 9:** Where financial, ownership or shareholding links exist between a third party and a health care role player (such as a medical scheme, administrator, intermediary or any health care role player), confidential- or personal information obtained by such role player in the course of its business as service provider, managed care organisation, medical scheme, administrator, broker may not be passed on to-, or be used by- or utilised in any manner by such third party institution or organisation for the purpose of conducting their business. The same prohibition applies where medical scheme benefits are linked to the conditions of work and/or employment contract. A contribution made by an employer towards an employee's medical scheme does not entitle that employer to access any personal- or health care information held by the scheme or any health care role player.

**Principle 10:** Health care organisations should use an objective and balanced process to review the use and disclosure of personally identifiable health information for research purposes. The provisions of internationally accepted research documents, such as the Helsinki Declaration have to be adhered to.

**Principle 11:** Health care role players should not disclose personally identifiable health information to law enforcement officials or any other person acting in a capacity of investigating any alleged or suspected offence, absent a compulsory legal process, such as a warrant or court order.

**Principle 12:** Health privacy protections should be implemented in such a way as to enhance, and not undermine, existing laws prohibiting discrimination such as the Promotion of Equality and Prevention of Unfair Discrimination Act



of 2000 and the Employment Equity Act of 1998. This principle also applies to issues such as profiling of practices and patient groups.

**Principle 13:** Strong and effective remedies for violations of privacy protections should be established, including employee training and -disciplinary measures, appropriate contractual provisions and penalties with any party contracting with a health care role player, etc.

**Principle 14:** All role players that handle healthcare information should be held accountable for breaches of privacy and confidentiality for information in their hold. Aggrieved persons should have access to internal procedures and/or outside institutions at which to lodge complaints.

### **6.3 ELECTRONIC MESSAGING**

In terms of electronic messaging, it is recommended that any communication of patient information (including administrative data) be viewed as sensitive and hence requires a considerable measure of security and privacy. The HIPAA regulations also state that any information from which a patient's state of health could be inferred – e.g. demographic information, eligibility and benefits, appointment schedules, health and disease content. – be regarded as sensitive, and handled as such.

There are 2 aspects of security that need to be considered:

- The security of that information within an organisation – be it a doctor's practice, pharmacy, hospital or funder; and
- The security of that information while in transit (electronically) from one organisation to another.

Note that the following issues were taken into account with respect to the South African environment:

- the majority of providers cannot afford experienced security personnel;
- the majority of providers cannot afford sophisticated security software;
- a significant portion of the provider base uses fairly old equipment;
- many providers still use DOS based applications;
- the majority of providers use intermediaries to communicate electronically with the funders
- Some of these intermediaries provide software – free of charge – to the provider to enable secure communications.

#### **6.3.1 SECURITY WITHIN AN ORGANISATION**

This is the area where privacy and confidentiality of patient data is most at risk.

***The most serious breaches of security are by:***

- Employees (either uninformed, disgruntled or those with malicious intent);
- Ex-Employees (generally disgruntled); and
- Third parties – contractors or external support staff.

Organisations should protect themselves and their patients by implementing the following:

- Staff should be trained on the legal and ethical requirements of patient data privacy.
- Employees should sign confidentiality agreements annually. This will enforce the importance of protecting patient data and nullify claims by employees that they were unaware of the policy.
- A breach of patient confidentiality should be included as a disciplinary offence in the code of the conduct for the organisation.
- Warning banners should be displayed on application systems, advising employees of their responsibilities to protect patient privacy.
- Applications should have the capability of setting access rights so that an employee only has access to the information that he or she requires.
- In general employees must be aware that they only have access to patient information on a "need to know" basis.
- Applications must have adequate audit and control functions. Audit trails should be reviewed regularly and their existence should be communicated.
- Applications should be programmed to log people off after a specified period of inactivity. Alternatively, employees should be required to use password protection on screen savers. A recommended period in a high traffic area is 5 minutes.
- Policies should be established to immediately withdraw a terminated employee's access to patient information. Strongly suggested is that those employees who worked closely with the former employee should also have their passwords reset as they may also have been compromised.
- Policies should be established on network and application password controls. This policy should cover how often network and application passwords should be changed. Giving your password to another employee should be deemed a disciplinary offence.

### **6.3.2 SECURE MESSAGING BETWEEN ORGANISATIONS.**

These security standards specifically address the issue of how healthcare organisations will securely transmit patient data across Internet Protocol networks. Only IP networks have been considered, as it is likely that this will become the de facto transport mechanism for communication.

#### ***In order to ensure security, it must be certain:***

- that the communication occurs between the parties intended. This is referred to as **authentication**;
- that the **confidentiality** of that information is maintained, by ensuring that access by un-authorised parties is prevented;
- that the document has not been altered i.e. that the **integrity** of the document can be proven;
- that the sender and the recipient of the data are provable without controversy. This is referred to as **non-repudiation**.

In order to achieve all of the above, cryptography (to ensure confidentiality) together with digital certificates (to authenticate the parties and ensure non-repudiation) are

absolute requirements. The Public Key Infrastructure (PKI) is the technology of choice to secure messages in this way. A PKI is the management model that controls the keys used in public key cryptology and makes digital signatures possible.

***Many market needs are driving the interest in digital certificates:***

- Internet commerce;
- Companies want to save money by transferring their traffic from leased lines and VANS to public networks;
- There is a need for added security when communicating over the internet; and
- A reliable replacement for his traditional password is required.

Note that Microsoft has already included PKI technology in Windows 2000 and Windows XP. Health regulations in both the USA (HIPAA) and Australia (NHISC) have stipulated the use of PKI. In South Africa, the only company that has implemented PKI for healthcare message processing is Healthbridge. Encryption and digital certificates are applied at over 2000 doctor practices and 2 of the main hospital groups.

**Conclusions**

Communication over public IP networks will become the standard;

- As more parties communicate over public networks there is a need for added security;
- The information being transmitted between providers and funders is highly sensitive and as such warrants even more stringent security than one would normally consider;
- PKI technology is the only way to achieve the objectives of authentication, confidentiality, integrity and non-repudiation; and
- PKI technology is currently being applied in many provider sites currently in South Africa.

Following these conclusions, it is recommended that any communication of patient data over public IP networks needs to be secured using the PKI model:

- A secure channel must be created (using a secure socket layer session - SSL);
- The parties must be verified (using digital certificates); and
- The information must be encrypted (using public key cryptology).

## **7. RECOMMENDATIONS**

### **a) Diagnosis codes**

The Council is considering recommending the use of the ICD version 10 in the industry in line with the provision of the regulations. This coding system has already been adopted by the National Department of Health for use in the public sector. There is consensus by all stakeholders, in both the public and the private sector, that the ICD 10 code be the standard diagnosis coding system.

The introduction of this diagnosis code will have a positive impact on the recording of morbidity and mortality data, clinical and financial risk management, reimbursement practices and statistical reporting. It will enhance the efficiency of health care funders, providers and other relevant stakeholders.

#### ***Limitations of the diagnosis code***

It should be noted that ICD 10 does not entirely meet the needs of most countries, including South Africa. In our case, this is more pronounced when considering psychiatric conditions. Currently, psychiatric conditions are covered under the Diagnostic and Statistical Manual of Mental Disorders (DSM). DSM was developed by the American Psychiatric Association and was derived from ICD to be used in mental health setting. It includes definitions and diagnostic criteria for mental disorders.

As an alternative, proposals have been made to also adopt a modified version of ICD 10, namely the ICD 10 Clinical Modification (ICD 10 CM). This coding system provides adequate coding for psychiatric conditions. By May last year, the American National Center for Health Statistics (NCHS) reported the publication of a draft version of ICD 10 CM and no implementation date had been decided upon. This situation will be monitored closely.

### **b) Procedure codes**

The Council is considering recommending that the industry adopt the use of CPT 4 coding system for reporting of medical, surgical and diagnostic services and for billing purposes. There is however, a need to consider alternative procedure coding systems that are non proprietary. This process is currently underway and recommendations will be made available soon.

### **c) Pharmaceutical codes**

The two types of coding systems: the EAN and the NAPPI, have their strengths and weakness. There are issues around proprietorships, the ability to capture or link to clinical data and the readiness for introduction into the industry. These however, could be overcome. The success of the standardisation of a coding system in the healthcare industry depends to a large extent on collaborative efforts among all the stakeholders.

The NAPPI is the coding system of choice in the private sector, for billing and other purposes, and would therefore be recommended in the interim, while other coding systems are explored. It therefore remains possible that all the stakeholders might migrate to the EAN coding system once all the operational and other relevant issues have been fully addressed. The public sector should be allowed to continue using its own coding system until clarity has been established on an appropriate coding system.

The EAN coding system is currently in use internationally for pharmaceutical products. It is also used locally for tracking of drugs. The Pharmaceutical Electronic Standards Authority (PESA) is looking at its appropriateness for pharmaceutical coding. Once this process has been concluded, the pharmaceutical coding system currently in use would be reviewed. for full incorporation into the day to day transactions of pharmaceutical products.

The Council for Medical Schemes undertakes to monitor developments in this area very closely as they unfold and to liaise with all the relevant parties.

#### **d) Electronic messaging**

XML is universally recognised as the common syntax for all messaging standards in the future. Ideally, we should not be considering any standard that is not XML based.

There is a plethora of standards in use in South Africa – some driven by PHISC, others by vendors. The cost of managing and maintaining these standards introduce significant costs to the Healthcare industry. We should be driving aggressively a program to standardise all messaging between providers and funders so as to save costs for the industry as a whole.

The drive to move to a common set of messages would help save costs, but will involve significant work and co-operation between all parties. Co-operation between all parties will best be achieved by legislation as has been shown in Australia and the USA.

If possible we should be leveraging off work done in the rest of the world, rather than reinventing the wheel. HL7 is a healthcare standards organisation that is international. Extensive work has already gone into development of the V3 messages. Over and above the messages that it has established, it has a well thought out methodology to defining and developing new messages.

PHISC is an established entity in South Africa and is the mechanism through which, together with the government, new standards could be investigated and ratified.

#### ***Given the above, the recommendations are:***

That HL7 be implemented in RSA in a phased approach so as to minimise the impact that such a change would have on the industry. To this end, a clear and reasonable time frame needs to be set to replace the existing EDIFACT claim message (the only recognised claim standard in the country) and other claim message standards currently in use.

That PHISC and the National Health Information System of South Africa (NHISSA) investigate, propose and ratify the subset of HL7 messages that would be implemented in South Africa.

## **8. IMPLEMENTATION OF CODING SYSTEMS**

### **a) Diagnosis code**

The National Department of Health is the custodian of the ICD license for the public sector. The Council is exploring ways for the private sector to access the license. The ICD 10 license is in the public domain and has international support from the WHO. Pricing issues will not be a problem as it could be made freely available for all the users.

#### **Implementation plan**

A consultative meeting will be held with the industry stakeholders to determine the implementation date of the ICD 10. It is important that all stakeholders put in place processes and systems to efficiently implement the ICD 10.

#### **Challenges to implementation**

The shortage of experts with adequate expertise in ICD 10 might pose a problem to the implementation of the coding system. In addition, lack of financial resources (manuals, funds for training, etc) has also been identified as an area of possible concern, particularly in the Public sector.

#### **Operational issues**

The introduction of any coding system requires an investment in human capital and information technology systems. These are issues that would need to be considered. Ideally, a Co-ordination Committee consisting of stakeholders from various groups within the health sector should be put in place. This Committee will play an advisory role and might also help monitor trends and developments around the coding system. Inputs on Uniquely South African conditions need to be monitored.

#### **Training**

Training of coders is an essential ingredient to the improvement of the quality of coding. Training impacts on the important elements of coding such as: reliability, validity, completeness and timeliness. Standards for training courses need to be put in place and training should ideally be conducted by accredited coding specialists.

### **b) Procedural coding**

SAMA currently holds the license to the CPT codes. A representative structure of industry players is in discussions around several issues pertaining to CPT codes including

licensing matters. This committee will be important in advising on issues around pricing of the license for the users. At the same time, other procedure coding systems are being investigated.

**c) Electronic Messaging**

The SABS is currently looking into the feasibility of HL 7 in the South African environment. The Council will await the outcome of this initiative before a final recommendation is made.

## **APPENDIX 1**

### **LIST OF PARTICIPANTS**

<b>Name</b>	<b>Company</b>
Appasamy T	BHF
Bishop M	Afrox Healthcare
Burn A	Dept of Health
Coetzee C	Dept of Health
Corkett C	Medscheme
de Beer G	SAMA
De Villiers M	Carecross
D'Elboux G	Medi Clinic
Gilbert J	Dept of Health
Gobinca K	Transnet
Hanmer L	MRC
Harrison S	Council for Medical Schemes
Herbst K	MRC
Kilian A	Afrox Healthcare
Klinck E	SAMA
Kriel W	PSSA
Matshidze P	Council for Medical Schemes
Mavengere P	SAMA
Patel R	Liberty Health
Pope T	Netcare
Ruff B	Discovery Health
Satiyadev S	Discovery Health
Seritsane M	Council for Medical Schemes
Steenekamp B	Igolide Health Networks
Steyn N	HASA
Visser G	SABS
Webster M	MX Health



## **APPENDIX 2**

Medical, dental and other specialist services (as per Health Professional Council and SAMA)

### **MEDICAL SPECIALISTS**

Dermatologists  
Gynaecologists  
Pulmonologist  
Physicians  
Gastroenterologist  
Neurologists  
Cardiologist  
Psychiatrists  
Medical Oncologist  
Neuro-surgeons  
Nuclear Medicine  
Ophthalmologists  
Orthopaedic Surgeons  
Otorhinolaryngologists  
Paediatricians  
Paediatric Cardiologist  
Specialists in Physical Medicine  
Plastic and Reconstructive Surgeons  
Radiotherapists  
Surgeons  
Thoracic Surgeons  
Urologists

### **CLINICAL SUPPORT SPECIALISTS**

Anaesthetists  
Radiologists  
Pathologists  
Laboratory Technologist  
Other

### **DENTAL SPECIALISTS**

Maxilla, Facial and Oral Surgeons  
Oral Pathologists  
Orthodontists  
Periodontists  
Prosthodontists

**Other support services**

Podiatrists  
Optometrists  
Physiotherapists  
Orthoptists  
Speech Therapists  
Psychologists  
Occupational Therapy  
Private Nurses  
Dieticians  
Medical Technologists

**Allied health professions (as per Allied Health Professions Act, 1982)**

Homeopaths  
Chiropractors and Osteopaths  
Naturopaths and Phytotherapists  
Therapeutic Massage, Aromatherapy and Reflexology  
Ayurvedic Practitioners  
Acupuncture and Chinese medicine

**Hospitals services**

Hospitals - Unattached operating Theatres/Day clinics

Ward fees  
Theatre Fees  
Consumables  
Medicines dispensed  
Ward fees  
Theatre Fees  
Consumables  
Medicines dispensed

Hospitals - Other Private Hospitals

Per Diem

Hospitals - State/Provincial Hospitals

Ward fees  
Theatre Fees  
Consumables  
Medicines dispensed

**Other services**

Appliances  
Prosthesis

**Ambulance Services**

Basic life support  
Intermediate life support  
Advanced life support  
Other

### **APPENDIX 3**

#### **Dimension table – postal codes**

Refer to the Council for Medical scheme website: [www.medicalschemes.com](http://www.medicalschemes.com)