

Medical claims submission

Medical practitioners employed in the private sector in South Africa are responsible for providing service to approximately 20% of the population.

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Some 7 million people are registered as members and beneficiaries of approximately 160 medical schemes, which operate under the supervision of the Council for Medical Schemes. Efficient claim submission to this multitude of third party funders is a vital component of practice management, as it has a considerable and direct effect on the practice cash flow.

Current methods of claim submission

The principal methods of submitting claims to medical schemes are paper claims, electronic data interchange (EDI) batch claims and real-time/online claims. A new concept in electronic claiming, referred to as 'Now or Later' has recently been introduced, and offers the benefits of batch and real-time/online claiming. Many practices employ a combination of these claiming methods. This may be based on personal preference, but it is more often determined by limitations of either their practice management application (PMA) software, the hardware infrastructure available at the practice, the EDI switching service responsible for transporting data to the medical schemes, or the efficiencies of the respective medical schemes.

Some of the advantages and disadvantages of the different claiming methods are discussed below.

Paper claim submission

Advantages

- Minimal hardware and software requirements.
- No computer literacy required.
- No internet connectivity required.
- All medical schemes will accept paper claims.

Disadvantages

- Claim submission occurs after the event, thereby forcing a delay in correcting errors.
- Reliance on the efficiency of postal or courier services.
- Time-consuming telephonic checking of member validity and availability of funds.
- Inefficient for the purpose of checking medical scheme rules and prices.

- Complete or partial rejection of the claim occurs after the event, necessitating collection of debt from the patient at a later date.
- Complexity of medical scheme rules makes this a redundant option.

EDI batch claim submission

Advantages

- Limited hardware/software requirements.
- The batch process was developed around the 'workflow' of the typical practice, making it easy to use.
- Less onerous connectivity requirement – a dial-up modem is adequate.
- Electronic feedback from the switch and funder provide communication on the status of the claim.
- Improved payment cycles enhances cash flow.
- Fewer bad debts as a result of integrated claims management.
- Improved administration efficiencies in the practice.

Disadvantages

- Delayed validation of membership details and availability of funds.
- Claim submission occurs after the event, resulting in a delay in correction of errors.
- Complete or partial rejection of the claim occurs after the event, necessitating collection of debt from the patient at a later date.

Real-time claim submission

Advantages

- For practices that have amended their workflow, claim submission occurs at the point of service, thereby allowing for immediate correction of errors in the claim or member details.
- Member validation, proof of delivery of the claim to the fund, and availability of funds can be determined immediately through direct communication with the medical scheme.
- Immediate awareness of levies and/or co-payments, or complete/partial rejection of the claim reduces fraud, and allows the practice to collect owing amounts while the patient is in the rooms.

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- Improved payment time enhances cash-flow.
- Reduced administration in collecting book-debt.
- Fewer bad debts as a result of integrated claims management.
- Improved administration efficiencies in the practice.

Disadvantages

- Hardware/software requirements generally more rigidly applied.
- Connectivity via landline, integrated services digital network (ISDN), general packet radio service (GPRS), third-generation cell phone technology (3G), or asymmetric digital subscriber line (ADSL) is required.
- Practices require to change their workflow methods for real-time claims submission.
- Not all medical schemes are enabled to transact real-time claims.

'Now or Later' claim submission

Advantages

- Limited hardware/software requirements.
- The 'Now or Later' process was developed around the workflow of the typical practice, making it easy to use.
- Detailed electronic feedback from the switch and funder provide efficient communication on the status of the claim.
- 'Now' submission provides immediate awareness of levies and/or co-payments, or complete/partial rejection of the claim, and allows the practice to collect owing amounts while the patient is in the rooms.
- Improved payment cycles enhance cash flow.
- Fewer bad debts as a result of integrated claims management.
- Improved efficiencies in the administration of the practice.

Disadvantages

- Limited to the more popular PMAs at this stage.
- Requires fast connection like those offered by GPRS, 3G, ADSL or ISDN.
- Not all medical schemes are enabled to transact real-time claims and for those schemes the following is applicable:
 - Delayed validation of membership details and availability of funds.
 - Claim submission occurs after the event, resulting in a delay in correction of errors.
 - Complete or partial rejection of the claim occurs after the event, necessitating collection of debt from the patient at a later date.

The introduction of prescribed minimum benefit (PMB) conditions and the Risk Equalisation Fund, which compensates funders in respect of these conditions, means that the data sent to the medical scheme must be comprehensive and accurate in all respects. This means that the practice, the developers of practice management software and the medical schemes must implement detailed ICD-10 diagnoses, ICD-10 diagnoses per line on prescriptions, and national pharmaceutical product interface (NAPPI) codes for medicines, materials and suchlike. In this environment, it is becoming imperative that all stakeholders involved in servicing medical scheme members are able to adapt and respond to the changing requirements.

The medical claim

Aside from the accounting and reconciliation functions, the PMA is required to create an invoice in electronic format for transmission to the respective medical schemes. The format of the invoice

for transmission in EDI batch is relatively flexible, but that for real time is absolutely defined. The invoice generated by the PMA has multiple mandatory fields and the format of data entered into those fields is required to match exactly the format of the switching company's specification. As each medical scheme has different data requirements, the invoice data are converted into the specific medical schemes data requirement by the switching entity, and then forwarded to the medical scheme. All electronic responses from the medical scheme are treated in the same way so that the data received by the PMA are readable by that PMA. As a simplistic example, the acceptable format for the patient's date of birth by medical scheme 'A' is dd/mm/yyyy. A PMA may use the format yyyy/mm/dd and the switching entity would convert this to dd/mm/yyyy when delivering claims to medical scheme 'A'.

In creating the invoice, the PMA applies codes and rules against the captured data on the diagnosis, consultations and procedures, medical scheme plans and options and medicines and materials. Coding improves the quality of data management, ensuring consistency in disease, procedural and drug descriptions, thereby enabling health care roleplayers to communicate efficiently. The codes and rules include the International Classification of Diseases, Version 10 (ICD-10), the National Health Reference Price List (NHRPL), and individual medical scheme rules, as detailed below.

International Classification of Diseases, Version 10 (ICD-10)

ICD-10 coding is distributed under licence from the World Health Organization, and is one of the standards used for classifying diseases. Accurate application of ICD-10 improves the consistency and quality of health data, enabling health authorities and funders to make informed decisions regarding planning, health management and disease patterns. With the introduction of ICD-10 per diagnosis, and in future, ICD-10 coding per item on prescriptions, funders and regulatory bodies will be better able to manage their risk, particularly in terms of chronic and PMB conditions. ICD-

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ICD-10 coding is integrated seamlessly into some of the newer PMA systems and the ease of use enhances practice efficiency.

National Health Reference Price List (NHRPL)

The NHRPL is reviewed annually by the Council for Medical Schemes. It incorporates procedural and modifier codes supplied by the South African Medical Association (SAMA), as well as codes from the Current Procedural Terminology (CPT). A set of reference prices proportionate to the relative value of the procedure are provided in the NHRPL and allow for negotiation between the service provider and the funder. These codes are applied within the PMA and provide a means of identification of the service provided and benchmark values for payment.

Medical scheme rules

Many practices subscribe to the service provided by medical data update companies such as Medprax, and their software is kept up to date with medical scheme information and information about medicines and materials.

Scheme information

- Scheme administrator details.
- Scheme plan, option and sub-option rules.
- Rules pertaining to co-payments and levies.
- Amount of benefit available/allocated for PMB conditions.
- PMB conditions cross-referenced to medicine/material NAPPI codes.
- Scheme formularies, chronic disease lists (CDL).

Medicine/material information

- Medicine and material prices, pack sizes, and generic substitution.
- Medicine classes, active substances, and scheduling information.
- Excluded item information.

The invoice in Fig. 1 reflects a hard copy version of the fields transmitted to medical scheme funders, with coding relating to the Council for Medical Schemes, ICD-10, and NAPPI reflected.

Electronic claim submission

One of the main problems with regard to electronic claim submission is the non-standardisation of hardware and software systems in use. Practices utilise a wide

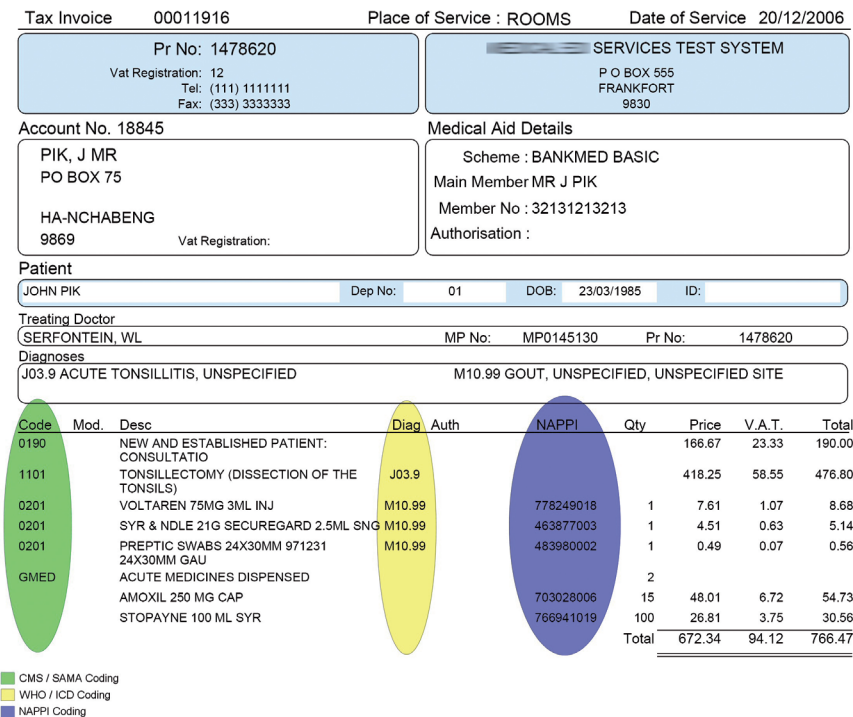


Fig. 1. Copy of an invoice.

The extent to which the practice can apply the codes and rules is a function of their PMA design, their operating system, the processing capability of the practice hardware, and the file version supplied by Medprax. There are currently a number of files distributed by this supplier. The newer files contain considerably more information than the earlier versions and are able to drill down further on acute and chronic options, oncology benefits, and medical scheme and PMB formularies. This version is used mainly by the newer PMA releases, which supply information-rich data to the funders for analysis and forward planning.

It is becoming imperative that practices make full use of software systems and resources that enable compliance with the ever-changing requirements of regulatory bodies and funders alike. This will ensure that rejections are kept to a minimum and, when utilised in real time with the patient physically present, considerably improves practice efficiency and bad debt.

variety of PMAs and a range of hardware, operating systems and communication methods to manage the practice accounting functions and claim submission. Since there is no standardisation of either hardware or software (and in reality there will never be) much of the information coming from the practices does not comply with the ever-changing requirements of the regulators and medical schemes. Furthermore, the medical schemes would simply not be able to cope with electronic data arriving at their processing systems from multiple sources and in incompatible formats.

It is primarily for these reasons that switching companies have developed and evolved as a communication portal and an interface between the practice software and that of the medical schemes or their administrators. They serve as central collection points for the electronic data deriving from the practices, and provide a conduit into each individual medical scheme or administrator.

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Furthermore, they provide varying degrees of validation functionality by returning electronic rejection notifications to the practice should the mandatory information provided not match that which is required to adjudicate the claim. A unique tracking number is assigned to either the batch, or to the individual claim, which serves as an audit trail relating to the batch or claim.

A number of models exist whereby claims are submitted to the respective medical schemes. Common to all models, is the generation of the appropriate invoice for the services rendered, which is then either stored in a data-file for EDI batch transmission, or submitted in real time. The various models are discussed in detail below.

EDI batch claim submission

The practice captures the claim off-line, rules and codes are applied as previously discussed, the claim is placed in a batch for EDI transmission, and the batch identified by means of a unique batch number. In general, the practice goes online, or connects to the switch's virtual private network, once a day, and submits the batched work electronically to the switch. The switch provides validation as to the authenticity of the claim, and validates membership against medical scheme card files held at the switch. Thereafter, a bulk batch is created and forwarded to the respective medical schemes for processing, or streamed individually to the respective funders. The practice receives a response with the next batch submission, usually 24 hours later, as to the validity of claims and the validity of membership in most instances. Corrections are made if necessary, and resubmitted with the next batch. In certain instances, the

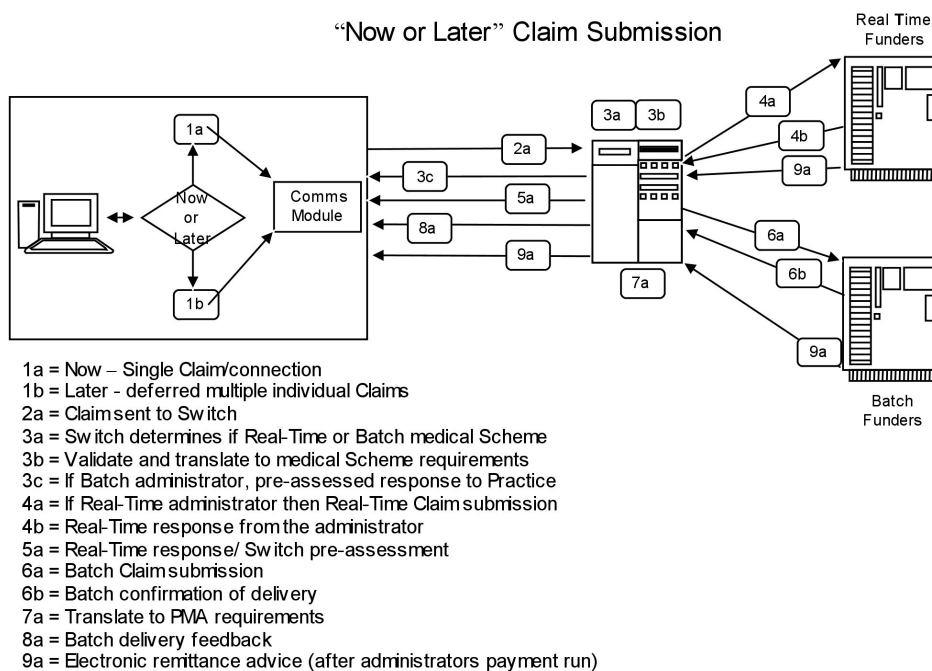


Fig. 3. 'Now or Later' claim submission.

practice will receive a late adjudication or rejection, which is not integrated into the practice PMA.

The EDI batch claim submission is depicted in Fig. 2.

'Now or Later' claim submission

This concept in claims switching (Fig. 3) offers the practice some of the benefits of real-time claim submission without having to change the way the practice works. The practice decides on the urgency of receiving an assessed response for each patient and selects 'now' for the claims they want an immediate assessed response for, and the balance falls into the 'later' batch, which is submitted at regular intervals as determined by the practice. The medical scheme response is stored on the

PMA and can be viewed and/or printed when the practice wishes to do so. The response is also embedded against the claim details on the PMA, providing a full history of the claim cycle up to the point of full payment. If the switch has real-time access to the scheme's administration system, the response is a fully adjudicated claim response, while other claims receive a pre-assessed response, which includes data validation, membership eligibility and benefit availability from the switch. Claim payments from certain scheme administrators may be communicated to the PMA using an electronic remittance advice. The newer PMAs now include automatic reconciliation of medical scheme payments against each claim, and product exception reports for the practice administrator to manage.

EDI BATCH Submissions

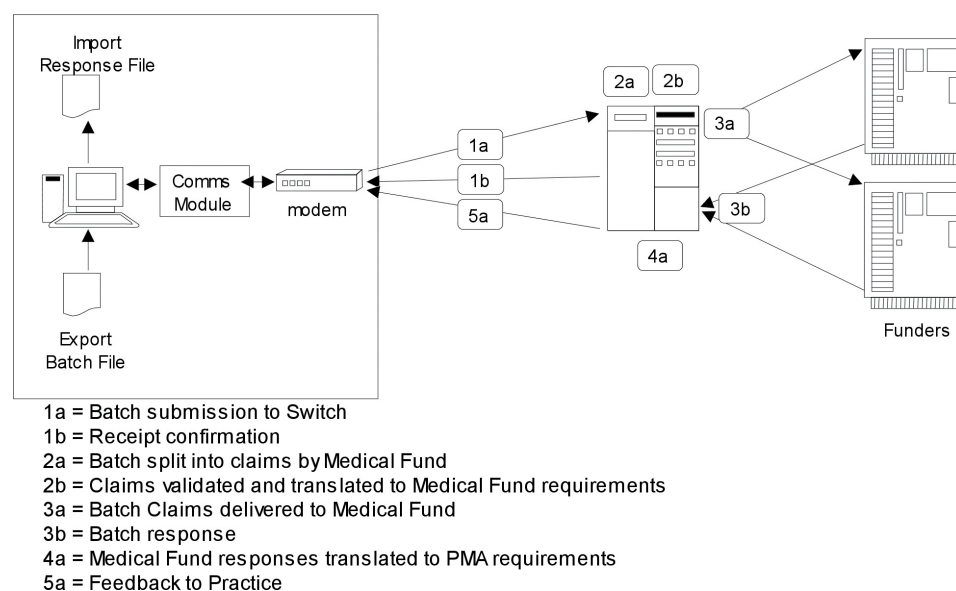
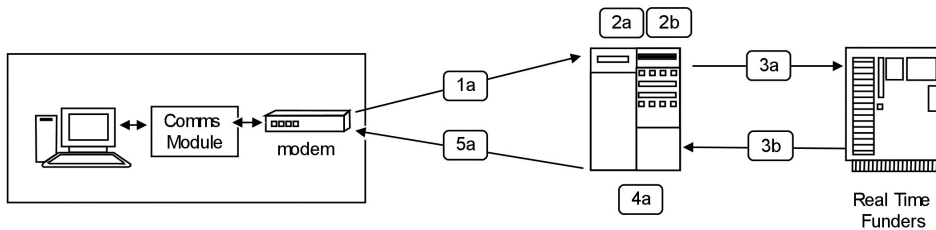


Fig. 2. EDI batch submission.

Real-time claim submission

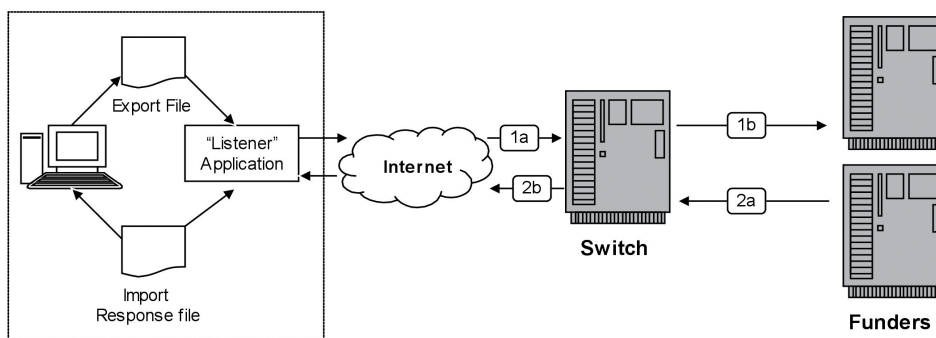
The general process is as follows: each individual claim is captured at the point of service, either off-line (if using a dial-up modem/ ISDN) or online (if using GPRS/ 3G/ ADSL), and the rules and codes applied by the PMA. Communication would then be made via various protocols including the Internet to the switching company, which would allow the practice PMA and switch software to identify and communicate with each other. The switch applies the claim data to a template specified by the respective medical scheme/ administrator, rejects the claim if mandatory fields are invalid or void, or submits the claim directly to the fund's processing system in a specified layout. Providing that funds are available, that all necessary rules and codes have been correctly applied, that the claim is not duplicated, and that the funder is so enabled, a uniquely coded line-by-line response message is returned to the switch.

Medical claims submission



- 1a = Real Time submission to Switch
- 2a = Validate content and format of Claim
- 2b = Translate to Medical Fund requirements
- 3a = Claims delivered to Medical Fund
- 3b = Real Time response
- 4a = Translate to PMA requirements
- 5a = Feedback to Practice for upload to PMA

Fig. 4. Integrated real-time submission.



- 1a = Transmission to Switch
- 1b = Switch transmission of Claims to Funder
- 2a = Response from Funder to Switch
- 2b = Response from Switch to Practice

Fig. 5. Real-time listener submission.

This is passed back to the practice PMA; the entire process on average takes no more than 20 - 30 seconds.

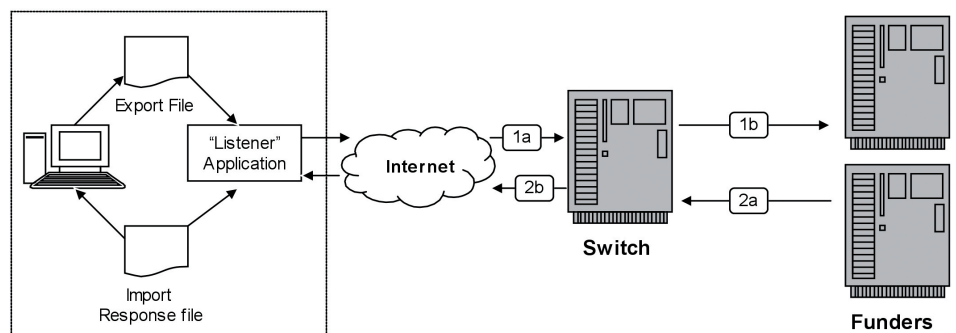
The integrated real-time submission is depicted in Fig. 4.

However, because the data sent to the switch come from multiple sources and in many instances from outdated PMA systems where rules and codes are inadequately applied, the following methods are used to shield the funder software systems from such invalid data. The funder message response in each case is similar.

A real-time listener programme (Fig. 5) installed by the switch on the practice computer reads the data file generated by the host PMA, interprets, accepts or rejects the claim data, encrypts and routes claims which are valid in either batch or real-time to the switch's system. The switch validates the claim data, forwards it to the scheme's administrators system for adjudication, and returns the assessed response message via the switch to the PMA. The drawback to this process is that the medical scheme response

message does not, as a rule, integrate into the host PMA system.

A real-time interface, containing updated medical scheme membership information, performs validation checking on behalf of contracted medical schemes/administrators (Fig. 6). A separate software application on the



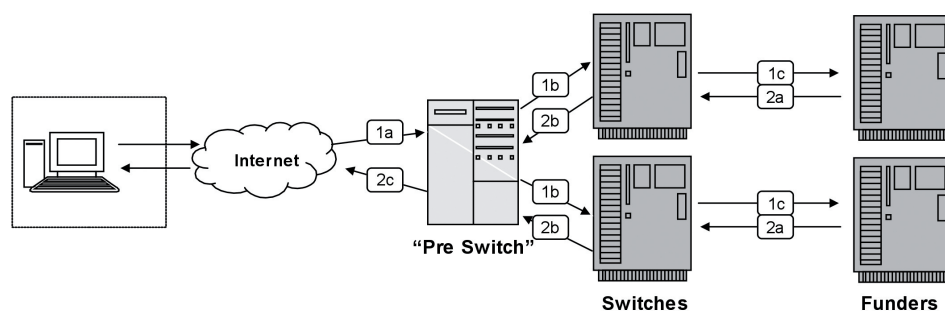
- 1a = Transmission to Switch
- 1b = Switch transmission of Claims to Funder
- 2a = Response from Funder to Switch
- 2b = Response from Switch to Practice

Fig. 6. Real-time interface.

practice computer reads the host PMA data file, and forwards claim information to the interface. A commercial agreement between the companies providing the interface and PMA software allows for the response message to be integrated into the PMA. This commercial agreement necessarily adds to the cost of an otherwise efficient claiming method.

A pre-switch server computer, remote from the practice and linked to the switch via secure connections, receives encrypted data from dedicated PMA software systems (Fig. 7). It validates and tracks each individual claim from the source PMA, via the switch, to the funder and back to the PMA. Since the pre-switch is able to transact with more than one switch, it is able to extract the best functionality from each. The practice no longer needs to deal with multiple switching companies in order to achieve efficiency. Furthermore, the pre-switch company, in receiving data from many practices, is able to identify immediately issues of a general nature, and those which are funder specific, respond to the issues efficiently, and notify the practices accordingly. The switch, in performing essentially a routing function, now receives data from only one source and in a standard format and not from a multitude of PMAs in differing formats. This process enhances the efficiency of claim transmission, resulting in fewer rejections and improved turnaround times. The central concept of the dedicated PMA/pre-switch process is one of real-time claim adjudication. The practice may, however, send in a 'later' mode if communications are down, or if it elects not to enjoy the full benefits of claiming in realtime.

Conclusion



1a = Transmission of pre- validated Claim to Pre Switch
 1b = Pre Switch validated Claim to Switch
 1c = Switch routing of Claim to Funder
 2a = Funder adjudicated claim response to Switch
 2b = Switch response to Pre Switch
 2c = Line by line integrated response to PMA

Fig. 7. Real-time pre-switch submission.

Recent advances in computer hardware, practice management software, switches and broadband communications allow transparency in the process of interacting with medical funders. By embracing these technological advances, the requirements of all stakeholders involved in the process of claim generation and submission are enhanced. Early error correction, membership validation, and funds availability allow service providers at times to operate with efficiencies exceeding those of certain medical schemes, thereby driving the remuneration process. These providers enjoy the benefit of reduced administrative workload, enhanced payment times and improved cash flow.

In a nutshell

- Some 7 million people are registered as members and beneficiaries of approximately 160 medical schemes, which operate under the supervision of the Council for Medical Schemes. Efficient claim submission to this multitude of third party funders is a vital component of practice management, as it has a considerable and direct effect on the practice cash flow.
- The principal methods of submitting claims to medical schemes are paper claims, electronic data interchange (EDI) batch claims and real-time or online claims.
- A new concept in electronic claiming, referred to as 'Now or Later', has recently been introduced, and offers the benefits of batch and real-time or online claiming.
- Many practices employ a combination of these claiming methods.
- This may be based on personal preference, but it is more often determined by limitations of either the practice management application (PMA) software, the hardware infrastructure available at the practice, the EDI switching service responsible for transporting data to the medical schemes, or the efficiencies of the respective medical schemes.

single suture Ecstasy and Parkinson's disease

Ecstasy appears to boost the number of dopamine-producing cells in the brain, or so researchers have found in rat brains. Human studies have

suggested that ecstasy is bad for the brain because it damages serotonin signalling neurons, which play a role in memory. Researchers gave ecstasy to pregnant rats, and found no damage to the newborn pups, but a threefold rise in the number of dopamine-producing cells. The cells were also more highly branched and developed than normal, suggesting better function. Cultured embryonic dopamine cells exposed to ecstasy survived better than cells not exposed to the drug, although high doses killed the cells. Researchers think that ecstasy can prevent the programmed cell death than normally occurs in stressed neurons – which is what happens in diseases like Parkinson's. This finding could lead to new drugs for Parkinson's disease.

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