

RCPAQAP

The Royal College of Pathologists of Australasia
Quality Assurance Programs

IHE

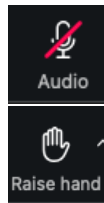
**Implementing standard
pathology messaging and
terminology
for laboratory accreditation**

Demonstration of Testing Tools

17 March 2025

Zoom Meeting Housekeeping

- Please use your full name/ organisation – change name click on Participants and 3 dot menu
- Please enter your email address, organisation and role in the chat
 - so we can follow with you
- If not completed please fill our our engagement questionnaire to help us help you better <https://survey.zohopublic.com.au/zs/WwDv7x>
- Meeting will be recorded
- Please remain on mute
- Raise hand to speak



The Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP) acknowledges the Traditional Custodians of the Country on which all our employees and stakeholders live and work throughout Australia.

We respectfully recognize that a strong connection to country, culture and community is integral to strong health and wellbeing for Aboriginal and Torres Strait Islander peoples.

The RCPAQAP acknowledges the Gai-marigal people as the Traditional Custodians of the land on which our office is located in Sydney and pay our respect to Elders past, present and future.

Welcome

RCPAQAP

The Royal College of Pathologists of Australasia
Quality Assurance Programs

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Event Ambassadors



RCPAQAP Validation Tools and Aids

Demonstration



RCPAQAP Validation Tools and Aids

Currently Available (but not yet public)

- **RCPAQAP Validator** – Validates and reports on conformance with the expectations of NPAAC RICR5, ADRM 2021.1, RCPA SPIA for e-Requesting, RCPA SPIA for Reporting and RCPAQAP EQA Results conformance profiles
- **RCPAQAP SPIA Coding Performance Reporter** – Reports issues with coding of orders or results for conformance with the expectations of the RCPA SPIA
- **NPAAC RICR5 Conformant Order Message Generator** – Produces a conformant HL7 v2 message for user-selected set of orderable tests
- **RCPAQAP SPIA SNOMED Lookup Application** – Allows the user to search for SNOMED metadata by discipline, RCPA preferred term or RCPA synonym, including the Top 50 Priority Orderable Tests



RCPAQAP Validation Tools and Aids

In-progress and Planned

- **RCPAQAP SPIA LOINC Lookup Application** (in-progress) – Allows the user to search for LOINC metadata by RCPA preferred term or RCPA synonym and a collection of filters including discipline and many others
- **RCPAQAP Conformant Results Message Generator** (planned) – Produces a conformant HL7 v2 message for user-selected set of reportable tests
- **RCPAQAP EQA Results Message Validator** (planned) - Validates and reports on conformance with the expectations of the RCPAQAP EQA Results conformance profile – lightweight, with no dependencies on external resources or services



RCPAQAP Tools Landing Page

RCPAQAP Tools and Aids Landing Page

RCPAQAP RCPAQAP HL7 v2 Pathology Message Standards Conformance Tools

The Royal College of Pathologists of Australasia
Quality Assurance Programs

The Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP) fully supports the Australian Pathology and allied industries in their endeavours to improve quality of care through the use of standards-conformant HL7 v2 Pathology Orders and Results messages for the communication of pathology testing requests and pathology test results between laboratories and points of care.

The RCPAQAP HL7 v2 pathology messages standards conformance validation, reporting and RCPA SPIA coding lookup applications are provided by RCPAQAP to assist Pathology Laboratories, Clinical Practices, Secure Messaging Providers and other interested parties in progressing towards conformance and compliance with regulatory and accreditation requirements.

These tools are provided free of charge on an "as is" basis, with no warranties of any kind.

The **RCPAQAP Validator** accepts a HL7 v2 Orders or Results message, validates it for conformance with the expectations of the ADRM 2021.1, RCPA SPIA Guidelines and NPAAC RCCR5 Conformance Profiles, and provides the validation report for on-line viewing and for download for off-line viewing.

[RCPAQAP Validator App](#)

[Application User Guide](#)

[Validation Report Guide](#)

The **RCPAQAP RCPA SPIA Coding Performance Reporter** accepts HL7 v2 Orders or Results messages, validates them for conformance with the expectations of the RCPA SPIA Guidelines for e-Requesting or Reporting and provides the validation report for on-line viewing and for download for off-line viewing.

[SPIA Coding Report App](#)

[Application User Guide](#)

The **RCPAQAP Standards-conformant HL7 v2 Order Message Generator** allows the user to select one or more Orderable Tests from the RCPA SPIA-defined collection, optionally choose from the list of synonym Terms and synonym Specimen names, and generate a HL7 v2 Order message that conforms to the expectations of the ADRM 2021.1, RCPA SPIA Guidelines and NPAAC RCCR5 Conformance Profiles, and provides the generated HL7 v2 Order message for on-line viewing and for download for off-line viewing.

[SPIA Orders Generator App](#)

[Application User Guide](#)

The **RCPAQAP RCPA SPIA-defined SNOMED Code Lookup Tool** allows the user to select an Orderable Test from the RCPA SPIA-defined collection, optionally filter the list by Discipline and by a test name-based filter expression, and view the Discipline, the SNOMED Code, the RCPA Preferred Term, the list of RCPA Synonyms and the list of Specimen codes for the selected Orderable Test.

[SPIA SNOMED Lookup App](#)

[Application User Guide](#)

The **RCPAQAP RCPA SPIA-defined LOINC Code Lookup Tool (WIP)** allows the user to select an Reportable Test from the RCPA SPIA-defined collection, optionally filtering the list by Discipline and several attribute filter expressions, and view the Discipline, the LOINC Code, the RCPA Preferred Term, the list of RCPA Synonyms and numerous other attributes.





[SPIA LOINC Lookup App](#)

[Application User Guide](#)





RCPAQAP Validator

RCPAQAP Validator

- Web browser-based application to upload of HL7 v2 Orders and Results messages and obtain report on the results of for conformance with the expectations of:
 - ✓ NPAAC RICR5
 - ✓ ADRM 2021.1
 - ✓ RCPA SPIA Guidelines
 - ✓ RCPAQAP EQA Programmes
- For ADRM 2021.1, conformance profile development used the “Caristix Conformance” Application 
- For ADRM 2021.1, conformance profile validation uses the “Caristix ValidateLive” Server 
- Also by Caristix a useful HL7v2 (international) messages resource  

RCPAQAP Validator

RCPAQAP Pathology HL7 v2 Message Validator  

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Quality Assurance Programs

This application allows a HL7 v2 Pathology message, orders or results, to be validated for conformance with one or more of the implemented conformance profiles.

The implemented conformance profiles are NPAAC RICR5^o, ADRM 2021.1^o, RCPA SPIA Guidelines^o and RCPAQAP Rules for electronic submission of EQA Results^o.

Which conformance profiles will be available for use and can be used in validation depends on the message type and options selection.

See "Help" and "User Guide" for information on how to use this service.

Please note that while the operation of this application requires that the HL7 v2 messages you provide are sent to the backend server for analysis, they are not retained there. As the messages pass through various components of the infrastructure to reach the validation server and the results are returned to your browser for display, the messages are not retained in any of the components in the path. **We very strongly advise against validating HL7 v2 messages that contain Personally Identifiable Information using this service.**

Do not use this service to validate HL7 v2 messages containing Personally Identifiable Information.




ADRM RCPA SPIA SPIA UoM SPIA Ref Int QAP EQA EQA UoM EQA UCUM *Set from request*

```
MSH|^~\&|LABG_AUS|LABG_AUS^0000^AUSNATA|LabWare|RCPAQAP^14863^AUSNATA|20230807052705+1000||ORU^R01^ORU_R01|LABG_20230807.2|P|2.4^AUS&Australia&ISO3166_1^HL7AU-OO-201701&&L||AL|AL|
PID|1||317009^^^RCPAQAP^QA~8003600000000007^^^AUSHIC^NI||CP-GC-22-03^QAP-11292||19780808|M||Suite 201, Level 2, 8 Herbert Street^St.Leonards^Sydney^NSW^2065^Australia^B
PV1|1|U
ORC|RE|317009^RCPAQAP^14863^AUSNATA
OBR|1|317009^RCPAQAP^14863^AUSNATA|12345678-13^Performing Laboratory^0000^AUSNATA|250637003^Alanine aminotransferase^SCT|||||CP/11292 CP-GC-22-03||SERUM&Serum&L|32003520072^RCP
OBX|1|NM|1744-2^Alanine aminotransferase^LN||58|[IU]/L^U/L^UCUM|5-40||||F||||40025064^Performing^Person^^^^^ASIC&DRNumber&AUSHICPR^L^^^QA|MTH^Abbott Alinity c / IFCC modified: wi
OBX|2|FT|TXT^Display Format in TEXT^AUSPDI||Empty comment - required by ADRM-2021.1 but ignored for QAP purposes||||F
ORC|RE|317009^RCPAQAP^14863^AUSNATA
OBR|2|317009^RCPAQAP^14863^AUSNATA|12345678-13^Performing Laboratory^0000^AUSNATA|271234008^Alkaline phosphatase^SCT|||||CP/11292 CP-GC-22-03||SERUM&Serum&L|32003520072^RCPA^QA
OBX|1|NM|6768-6^Alkaline phosphatase^LN||50|[IU]/L^U/L^UCUM|30-110||||F||||40025064^Performing^Person^^^^^ASIC&DRNumber&AUSHICPR^L^^^QA|MTH^Abbott Alinity c / IFCC modified: with
OBX|2|FT|TXT^Display Format in TEXT^AUSPDI||Empty comment - required by ADRM-2021.1 but ignored for QAP purposes||||F
```



RCPAQAP Coding Performance Reporter

RCPAQAP SPIA Coding Performance Reporter

- Web browser-based application for assessment of the use of RCPA defined Codes, RCPA preferred terms or RCPA Synonyms, Specimen Sources, Units of Measure,  Reference Intervals  for HL7 v2 messages containing orderable and/or reportable tests
- Uses RCPA SPIA for e-Requesting and Reporting definitions as the basis for assessment 


RCPA SPIA Coding Performance Reporter



RCPA SPIA Coding Performance Reporter

This application, once loaded from the server, operates entirely within your web browser and does not send any data anywhere. However, please note that, through the abundance of caution, we do not recommend using this application to analyse message with personally-identifiable information:

You should not use this application to analyse message with personally-identifiable information.

This application analyses HL7 v2 Orders (ORM^O01) or Results (ORU^R01) messages, provided by the User, for conformance with the expectations of the RCPA with regard to coding Universal Service identifiers, Observation Identifiers, Units of Measure and other aspects of messages when compared to data for SNOMED-CT and LOINC codes included in the RCPA SPIA Terminology Sets and related materials. 

Select one or more HL7 message files containing Orders OR Results [Choose more HL7 files](#)

[Clear File List](#)



[Analyse](#)

[View Report](#)

[Download Report](#)

Case-sensitive Term and Synonym match?

Selected 2 Files

File Name	Status	Msg Type	HL7 Vers	
___4065627_8521_3732713_deid.h17	Can process	ORU^R01	2.4	
__01_oruR01_clean_TTTTTTTTTT.h17	Can process	ORU^R01	2.4	

References





- Orders (ORM^O01)
 - [Royal College of Pathologists of Australasia Standardised Pathology Informatics in Australia \(SPIA\), Guidelines v4.0](#), e-Requesting, Section 2.
 - [SPIA Terminology Reference Sets and Information Models](#)
 - Relevant Requesting Pathology SPIA resources:



RCPAQAP SNOMED :Lookup Application



RCPAQAP SPIA SNOMED Lookup Application


- Web browser-based application that allows the user to search for RCPA SPIA-defined SNOMED code and metadata by Discipline, RCPA Preferred Term or RCPA Synonym
- Uses RCPA SPIA for e-Requesting definitions as the source of metadata 
- Highlights ADHA's "Top 50 Priority Tests/Panels for SPIA Adoption"   

The RCPA has been contracted by the Australian Digital Health Agency (ADHA) to collate pathology requesting data from a range of sources with the intent to develop a Priority Tests/panels for Standardised Pathology Informatics in Australia (SPIA) adoption which any laboratory can utilise as a starting point to begin the SPIA Implementation process.

The ADHA and the RCPA anticipate with more laboratories uploading their results to My Health Record, SPIA implementation will be necessary in the very near future. This Priority Top 50 list will deter laboratories from developing non-SPIA standardised terminology, which leads to unnecessary variation in requesting and reporting terminology, contributing to confusion for consumers and the community as laboratories utilise a broad range of terms for the same test or panel.

RCPA PIUTS Project Newsletter, Issue 21, December 2024

RCPAQAP SPIA SNOMED Lookup Application


RCPAQAP RCPA SPIA SNOMED Code Lookup 

The Royal College of Pathologists of Australasia
Quality Assurance Programs

Display Preferred Terms Synonyms Top 50 Priority

[Help](#)

[References](#)

Cytopathology 

cer 

Data Source: RCPA SPIA Requesting Pathology Terminology February 2025.xlsx
Sheet Name: RCPA SPIA Requesting_Feb 2025
Processed: 14/03/2025 15:06:20

Orderable Tests List


- (P) Cervical Co-test
- (S) CST Cervical Co-test (HPV LBC)
- (P) Cervical screening test
- (S) Cervical cytology screen
- (S) Cerebrospinal fluid CSF
- (P) Liquid based cervical cytology

RCPA SPIA Orderable Test Details for selected test

Discipline	Cytopathology
SNOMED Code	1257411000168100
RCPA Preferred Term	Cervical screening test
RCPA Synonym List	CST CST HPV screening HPV screen Cervical cytology screen
Specimen List	Cervix

RCPAQAP Conformant Order Message Generator

NPAAC RICH5 Conformant Order Message Generator

- Web browser-based application that allows the user to select one or more orderable tests and generate an example HL7 v2 ORM^O01 message that includes the SNOMED codes and related metadata in one or more OBR segments, and an example Request Form with the corresponding data
- Allows the user to choose a synonym, if defined, and change the specimen source if choices are available, prior to generating the message
- The generated message is valid as far as the RCPAQAP Validator is concerned, provided the user does not choose a synonym instead of the RCPA Preferred Term as this generates an information message
- Uses RCPA SPIA for e-Requesting definitions as the source of metadata 

NPAAC RIC5 Conformant Order Message Generator



This application allows the user to select one or more Orderable Tests, from the list of orderable tests defined in the RCPA SPIA eRequesting Terminology Set, and generate both the HL7 v2Order message and the corresponding Request Form as a PDF document. [i](#)

The generated HL7 v2 message will conform to the expectations of the RCPA SPIA Guidelines for eRequesting, the Australian Diagnostics and Referral Messaging - Localisation of HL7 Version 2.4 Standard (ADRM-2021.1) and the National Pathology Accreditation Advisory Council's Requirements for information communication and reporting, (Fifth Edition) (NPAAC RIC5) Standard. See [References](#) for links to NPAAC RIC5, RCPA SPIA and ADRM 2021.1 Standard materials.

Microbiology ▼
bacill ×

Message Type: NPAAC, ADRM and SPIA Required Content Only ▼

Click on test name below to remove it from the list

Orderable Tests

Acid fast bacilli microscopy

Ordered Tests

Electrolytes Urea Creatinine
Lipids fasting
Acid fast bacilli identification

Clear Ordered Tests

Set Order Options

Generate Message

View Message

Download Message

View Request

Download Request





Message validation was performed on 2025-02-19, at 08:42:17

The message was checked for conformance with the requirements of the RCPAQAP HL7 Conformance Profile for the [Australian Diagnostics and Referral Messaging - Localisation of HL7 Version 2.4 \(ADRM-2021.1\) Standard](#).
The HL7 Message **conforms** to the requirements of the ADRM-2021.1 Standard.

The message was checked for conformance with the requirements of the RCPAQAP HL7 Conformance Profile for the [Royal College of Pathologists of Australasia RCPA Standardised Pathology Informatics in Australia \(SPIA\), Guidelines v4.0 for e-Requesting](#).
The HL7 Message **conforms** to the requirements of the RCPA SPIA Guidelines v4.0.

The message was checked for conformance with the requirements of the RCPAQAP HL7 Conformance Profile for the [National Pathology Accreditation Advisory Council \(NPAAC\) - Requirements for information communication and reporting \(Fifth Edition\) \(NPAAC RICR5\)](#).
The HL7 Message **conforms** to the requirements of the NPAAC RICR5.


Contents


- [Message Identification Details](#)
- [Message Validation Results](#)
- [HL7 Message](#)
- [References](#)


Message Identification Details

- Sending Facility: RCPAQAP - 14863
- Message Control Id: a2f25f87-457b-4587-83d2-812106a373eb
- Date/Time of Message: 20250219083722+1000
- HL7 Message Source: HL7 message body from Web Service Request
- Message Type: **Orders Message**
- Conformance Profile Id: "TTTTTFFFF" / "TTTTTFFFF"

Message Validation Results

This message **conforms** to the expectations of the [ADRM 2021.1](#)  Standard.

This message **conforms** to the expectations of the [RCPA SPIA](#)  Guidelines v4.0 for e-Requesting.

This message **conforms** to the expectations of the [NPAAC RICR5](#)  Requirements.

HL7 Message


Please note that line numbers followed by a colon ":", shown to the left of HL7 Segment identifiers, are not a part of the message and are provided to facilitate correlation of diagnostic messages with the HL7 messages segments to which they refer.

```
1: MSH|^~\&|LabWare|RCPAQAP^14863^AUSNATA|LAB_AUS|LAB_AUS^0000^AUSNATA|20250219083722+1000||ORM^001^ORM_001|a2f25f87-457b-4587-83d2-812106a373eb|P|2.4^AUS&Australia&ISO3166_1^HL7AU-00-201701&&L|||AL|AL|AUS||en^English^ISO
2: PID|1||1739914642399^^^RCPAQAP^QA~8003601739914641^^^AUSHIC^NI||Librizzi^Thad^Fabien||19730307|M||Suite 9 20 Lot 9 Bungan Street^^Mona Vale^NSW^^Australia^B
3: PV1|1|U
4: ORC|NW|1739914642402-1^RCPAQAP^14863^AUSNATA|||
5: OBR|1|1739914642402-1^RCPAQAP^14863^AUSNATA||444164000^Electrolytes Urea Creatinine^SCT|||CP/999999 CP-GC-99-01||Serum&&L|||CP/999999|||CH
6: ORC|NW|1739914642402-2^RCPAQAP^14863^AUSNATA|||
7: OBR|2|1739914642402-2^RCPAQAP^14863^AUSNATA||252150008^Lipids fasting^SCT|||CP/999999 CP-GC-99-01||Serum&&L|||CP/999999|||CH
8: ORC|NW|1739914642403-3^RCPAQAP^14863^AUSNATA|||
```



RCPAQAP LOINC :Lookup Application

RCPAQAP SPIA LOINC Lookup Application (WIP)

- Web browser-based application that allows the user to search for RCPA SPIA-defined LOINC code and metadata by Discipline, RCPA Preferred Term or RCPA Synonym, and several LOINC metadata filters
- Uses RCPA SPIA for Reporting definitions as the source of metadata 

RCPAQAP SPIA LOINC Lookup Application (WIP)



RCPA SPIA LOINC Code Lookup

Preferred Terms Synonyms

[Clear Filters](#)

[Help](#)

[References](#)

- All Disciplines (no filter) ▾
- All values of Subgroup 1 (no filter) ▾
- White cell count differential ▾
- All Component Names (no filter) ▾
- All Properties (no filter) ▾

- All values of Timing (no filter) ▾
- All Systems (no filter) ▾
- All values of Scale (no filter) ▾
- All Methods (no filter) ▾
- lymphocytes ✕

Orderable Tests

- (P) Abnormal lymphocytes
- (S) Lymphocytes abnormal
- (P) Atypical lymphocytes
- (S) Reactive lymphocytes
- (P) Lymphocytes
- (P) Prolymphocytes

RCPA SPIA Reportable Test Details for the selected test

LOINC Code	29262-3
RCPA Preferred Term	Abnormal lymphocytes
RCPA Synonym List	Lymphocytes abnormal
Subgroup 1	Full blood count
Subgroup 2	White cell count differential
Specimen List	Blood
RCPA Preferred UoM	10 ⁹ /L
UCUM UoM	10 ⁹ /L
Component Name	Lymphocytes.abnormal
Property	NCnc
Timing	Pt
System	Bld
Scale	Qn
Method	Manual count



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Questions and Answers



Questions and Answers

References

-  **NPAAC Requirements for information communication and reporting (5th Ed.)**
https://www.safetyandquality.gov.au/sites/default/files/2023-02/requirements_for_information_communication_and_reporting_fifth_edition_2023.pdf
-  **Australian Diagnostics and Referral Messaging - Localization of HL7 Version 2.4**
<https://hl7v2wgau.atlassian.net/wiki/spaces/OOADRM20211/pages/721244/Australian+Diagnostics+and+Referral+Messaging+--+Localisation+of+HL7+Version+2.4>
-  **RCPA Standardised Pathology Informatics In Australia (SPIA) Guidelines V4.0**
<https://www.rcpa.edu.au/getattachment/f306b1de-0ac5-411b-946e-fdeaccdd07c8/RCPA-SPIA-GUIDELINES-V4-0.aspx>
-  **RCPA SPIA Terminology Reference Sets & Information Models**
<https://www.healthterminologies.gov.au/access-clinical-terminology/rcpa-pathology-terminology-and-information-models/>





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NPAAAC RICR 5th Ed.

ADRM 2021.1

RCPA SPIA Guidelines v4

Implications for Pathology Messaging in Australia

From “National Pathology Accreditation Scheme”


- In 1986, the Australian Government introduced compulsory accreditation for pathology laboratories
- To claim benefits under Medicare as an accredited provider, pathology laboratories must be assessed to and meet the national pathology accreditation standards
- The pathology accreditation standards  underpin the accreditation requirements specified in the *Health Insurance (Accredited Pathology Laboratories—Approval) Principles 2017*  
- **Pathology laboratories must meet the requirements of all the standards**
- The National Association of Testing Authorities, Australia (NATA) is the approved accrediting agency for pathology accreditation

More context – Joining the dots...

- Services Australia regulates the accredited pathology providers eligible for claiming under Medicare, which must be the “Accredited Pathology Laboratories”
- Australian Commission on Safety and Quality in Healthcare (ACSQH) develops and maintains Accreditation Standards and is responsible for the National Pathology Accreditation Scheme (NPAS)
- Under the auspices of the ACSQH the National Pathology Accreditation Advisory Council (NPAAC) develops and maintains the accreditation standards for pathology laboratories in Australia
- The NPAAC Requirements for information communication and reporting, (Fifth Edition) (NPAAC RICR5) are explicitly named in Schedule 1, Accreditation Materials, Item 4 of the Principles as “Accreditation Materials”



Questions and Answers

-  **NPAAC Requirements for information communication and reporting (5th Ed.)**
https://www.safetyandquality.gov.au/sites/default/files/2023-02/requirements_for_information_communication_and_reporting_fifth_edition_2023.pdf
-  **Australian Diagnostics and Referral Messaging - Localization of HL7 Version 2.4**
<https://hl7v2wgau.atlassian.net/wiki/spaces/OOADRM20211/pages/721244/Australian+Diagnostics+and+Referral+Messaging+-+Localisation+of+HL7+Version+2.4>
-  **RCPA Standardised Pathology Informatics In Australia (SPIA) Guidelines V4.0**
<https://www.rcpa.edu.au/getattachment/f306b1de-0ac5-411b-946e-fdeacccd07c8/RCPA-SPIA-GUIDELINES-V4-0.aspx>
-  **RCPA SPIA Terminology Reference Sets & Information Models**
<https://www.healthterminologies.gov.au/access-clinical-terminology/rcpa-pathology-terminology-and-information-models/>





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Pre- and Post-Session Materials

- Welcome (Derek Holzhauser - RCPAQAP) ([Video Recording from the 3rd of March session ▶](#))
- Overview - how to achieve and use conformant messages (Vince McCauley - IHE Australia) ([Video Recording from the 3rd of March session ▶](#))
- NPAAC RICR5, ADRM 2021.1, RCPA SPIA - Implications for Pathology messaging in Australia (Michael Czapski - RCPAQAP) ([Video Recording from the 3rd of March session ▶](#))
- Closing remarks (Vince McCauley - IHE Australia) ([Video Recording from the 3rd of March session ▶](#))

