Prescription Search Support Antimicrobial Web Components (v1)

RIZIV-INAMI

An introductory guide to web component integration

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1. Document management

1.1. Document history

Version	Status	Date	Author(s)	Modifications
1.0	Draft	30/04/2025	Inge Sneppe	First version of the cookbook for the release 1.0 scope « MVP » of PSS Web Components for Antimicrobial domain

1.2. Document reviews

Reviewers	Name(s)	Reviewed version	Comments
Smals	Jonathan Henrard, Kristof Steurbaut	1.0	Review and additional information about authentication and repository

2. Reference

IAM Connect Integration is a prerequisite in order to be able to integrate the web components. An e-Health token should be given as parameter each time a web component is called.

2.1. eHealth reference

All referenced documents are available on the portal of the eHealth platform. These versions, or any following ones, can be used for onboarding and accessing the eHealth platform service:

ID	Title	Version	Date	Author
1	eHealth Services – Web Access	2.0	12/07/2018	eHealth platform
2	Identity & Authorization Management (IAM) eXchange	1.1	28/06/2024	eHealth platform

You can access the eHealth API Catalog through the following URLs:

- Production environment: https://portal.api.ehealth.fgov.be
- Acceptance environment: https://portal-acpt.api.ehealth.fgov.be

2.2. Integration guide reference

We recommend consulting the PSS Integration Guide for essential information on the onboarding workflow, technical prerequisites, and integration best practices. It serves as a key reference to ensure a smooth and consistent implementation process. The integration guide will be published on https://www.ehealth.fgov.be/ehealthplatform/nl/service-customer-onboarding

3. Document information

3.1. Glossary

Term	Definition
PSS	This is the name given to the API which helps the prescriber selecting the correct recommendation. PSS stands for “Prescription Search Support”.
PSSa	Prescription Search Support specifically for the antimicrobial domain
Host	The software integrator responsible for embedding and managing web components within a larger system or platform, ensuring they function cohesively and interact with other components.
EPD	**The Electronic Patient Dossier (EPD)** in Belgium is a digital file that contains a patient's health information. The dossier is updated after each contact with healthcare providers and ideally includes data from all clinicians involved in the patient's care. The EPD ensures that medical information can be quickly and securely shared between healthcare providers and institutions, contributing to better quality of care and efficiency.
Prescriber	The person who initiates the prescription search support
Patient	The individual which is the subject of the prescription search support
Guideline manager	The guideline manager is a medical expert, specialized in a specific type of care (domain). The guideline manager is responsible for keeping the PSS content up-to-date with new scientific insights related to his domain.
Indication	The (clinical) indication is a disease, symptom or circumstance that makes a particular test, medication or procedure advisable.

Support Parameter	• A Support Parameter represents a question or condition (such as "Is the patient a risk patient?") so that all factors are collected to help PSS search the best support for the given indication (such as "Otitis media") and patient information. The list of Support Parameters that is required can vary depending on the Indication and logic applied.
	• The Support Parameter can have defined possible values (like "yes" or "no"). The value of a Support Parameter is determined by the patient’s situation. The Support Parameter value can be
	  • directly retrieved from the patient data,
	  • or automatically derived by PSS from a set of Patient Variable values,
	  • or can be manually overridden by the end user that is requesting support.

	The manual override of values is important to give the prescriber always the hand on correcting or completing the patient situation if necessary, as information in the EPD might not always be up to date. Some parameters cannot be retrieved from the EPD but serve as a reminder for the prescriber to do certain observations during patient visit (such as "dyspnea at rest or use of accessory muscles of respiration". The set of Patient Variables, and the rules on how they can define the Support Parameter value, are defined by an expert group and are handled and managed to be in line with the latest scientific insights in the PSS system.
Patient Variable	A Patient Variable is an individual characteristic or piece of information about a patient that can influence the treatment process or support outcome. These variables are sourced from the Electronic Patient Data (EPD) and include attributes like allergies, past operations, comorbidities, immune system dysfunctions, and previous medications. A set of Patient Variables values can be used to derive the value of the parent Support Parameter. They are typically represented by coding systems (e.g., SNOMED CT) and values that describe the patient's condition in a standardized way. This is not always the case.
List of recommendations	The PSS result is the support which contains the list of recommendations, based on the given input(s). The list of recommendations is the list of support options. Each support option contains a score and instruction. They are ranked by score of appropriateness. The scientific evidence is linked to the list of recommendations.

4. Goal of the document

The goal of this document is to provide all the information needed to integrate PSS web components for the antimicrobial domain. This document will explain some fundamental concepts to understand what must be given as inputs and what can be expected as outputs in order to implement and use the web components.

5. Support

- Issues in acceptance can be reported by sending a mail to integration-support@ehealth.fgov.be
- Issues in production can be reported by sending a mail to integration-support@ehealth.fgov.be.

6. Global overview

6.1. Context (goal of the project)

The goal of PSS (Prescription Search Support) is to help the prescriber in prescription processes in the application domains of:

- Antimicrobials
- Radiology
- Clinical Biology

Prescriptions in these 3 domains count for more than 48 million prescriptions per year.

Two types of prescriptions can currently be distinguished:

1. Referral prescriptions, these will be handled by the future UHMEP platform, these are applicable for the domains of Radiology and Clinical Biology
2. Medication prescriptions, these are consultable via the VIDIS platform and are stored in the Recip-e database, these are applicable for the domain of Antimicrobials

Adequate evidence-based support in the prescription processes contributes to the quality and effectiveness of prescribed care decisions. This is important for RIZIV-INAMI, which as a key actor in social security is responsible for reimbursements. RIZIV-INAMI acts in this project also as a joint-controller with FOD Volksgezondheid/SPF Santé publique/FPS Health responsible for the legal context around prescription search support. The project improves cooperation and information exchange between the various actors involved, thus contributing to an overall increased quality of care.

6.1.1. Generic PSS platform

Healthcare provider decision makers and executors can query the Prescription Support Service (PSS) in a secure manner in the context of a new or an existing care decision when making a prescription. The guidelines and decision rules for making care decisions are complex and specific by type of care. To support care decision making during the prescription processes, PSS will search a library of scored guidelines based on clinical indications that are predefined for each domain. The guidelines are subject to change over time, therefore the platform should also facilitate keeping the guidelines up-to-date. Moreover, the platform provides added value in an educational environment by enabling familiarization with the system. To make PSS operational quickly, we aim for smooth communication and integration with the software integrators.

6.1.2. Antimicrobial

Every year, about 11.5 million prescriptions are created in the field of "Antimicrobial". Via better alignment with the antibiotics guidelines established by BAPCOC (Belgian Antibiotic Policy Coordination Commission), and related decision rules established by EBPracticeNet, we expect that fewer incorrect antibiotic prescriptions will be made. Today, mainly antibiotics prescriptions for respiratory and urinary tract infections often deviate from the standard guidelines.

This document focuses on the description of the web components for the antimicrobial domain. The other domains are considered as out of scope.

7. Access management

7.1. eHealth token

The token of eHealth allows PSS to identify who is connected. Each integrator has to send the user token with the request if they want to use the PSS API.

The token has the following information that will be used for the access management:

- NIHDI number for the healthcare professional
    - In absence of the NIHDI number, PSS will use the SSIN for the healthcare professional
- The discipline of the healthcare professional

There is other information present in the token but those are not used for the access management.

Each user that wants to use PSS must be authenticated in order to be allowed to use PSS. PSS will verify the validity of the access token. PSS will also use the other information contained in the token to accept or reject the request. Web components call the PSS REST API directly (**not via FHIR**).

7.2. Disciplines

There is no distinction between the disciplines of the prescriber regarding access. As this is an ongoing project, the following target groups are currently supported:

- Pharmacist
- Physician
- Dentist
- Midwife

8. Integration of a web component

The integration of a web component is a straightforward process, it can simply be added by referencing the script in the container application. The container application will have to provide the input parameters to provision the web component with a working context. The web component may also return some values, the container app can therefore subscribe to those changes and react accordingly. The container will act as an orchestrator by dynamically handling the inputs and outputs of the embedded web components.

Example: in order to embed a web component in a classical web page, there are two things to add :

1. A script tag should be added in order to include the link to the corresponding bootloader script;
2. Programmatically add the custom HTML element corresponding to the web component

8.1. Repository

The artifact will be available on https://www.npmjs.com/~jdsssmals

8.2. Integration

Integrating a new version of the web component is a deliberate and controlled process for the integrator. The component is distributed via npm, and integrators include it in their project by specifying the desired version in the package.json file.

To initialize the component, the integrator simply imports the module (or the component definition) in the application's main.ts file. This registers the custom element and makes it available for use in the DOM.

Each release of the web component is aligned with the latest version of our API, ensuring compatibility with the most recent features and improvements. However, **breaking changes may be introduced in new releases**, so it is important for integrators to use the latest version.

9. Web components for the antimicrobial domain

The web components developed for the PSS (Prescription Search Support) project, encompass both back-end and front-end functionalities. These components are designed to streamline the integration process by significantly reducing the development effort required by integrators. Notably, the solution does **not** require direct FHIR integration, which simplifies implementation within existing systems.

The provided web components address complex clinical scenarios related to patient situation definitions in the antimicrobial domain. While the components encapsulate much of the required logic, certain responsibilities still remain with the integrator beyond embedding the web components themselves. **The key requirement is that the EPD software integrator must supply PSS with the parameters that are present for the patient, but only those relevant to the selected clinical indication. It is the integrator's responsibility to initiate communication with the PSS module and request a recommendation. PSS will not autonomously fetch patient data**—neither from the EPD nor from external data sources such as Vitalink, RSW, or RSB. Therefore, the integrator must ensure that all necessary patient data is made available to PSS at the appropriate time.

The following three web components will be provided:

1. pss-amb-get-support-parameters
2. pss-amb-summarized-patient-situation
3. pss-amb-recommendation

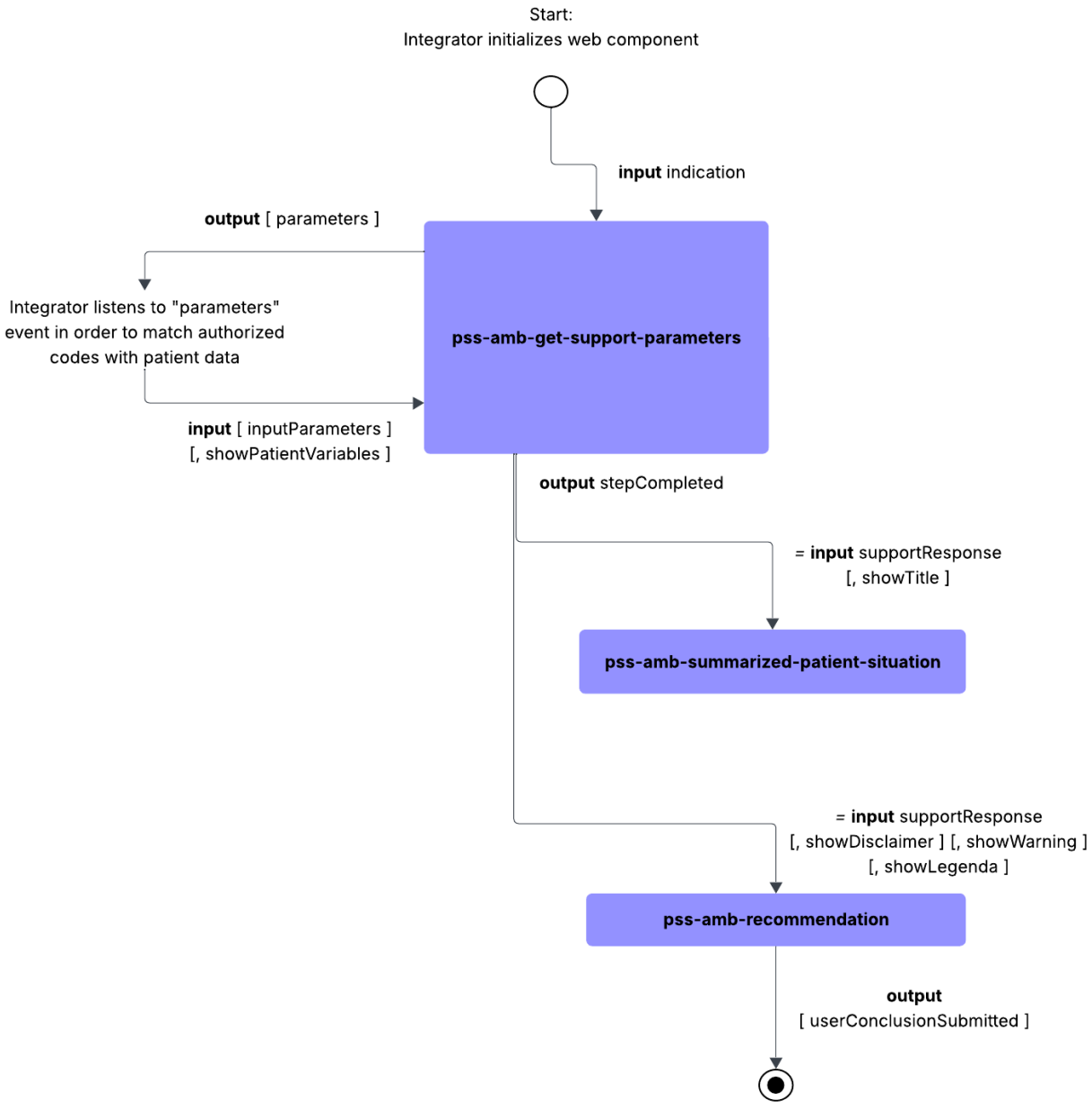
The same web components are utilized in the PSS stand-alone web app, designed for both professional and educational purposes. You can explore the integration of these components in the following environments:

- acceptation environment: https://www.acc.prescriptionsearchsupport.be/
- production environment: www.prescriptionsearchsupport.be/

The next chapters provide a detailed explanation of each component, including its business purpose, required inputs, and expected outputs. Before diving into the specifics of each component, we first visualize the workflow in a diagram. Followed by a description of the common input and output parameters, shared across all components.

9.1. Diagram

The diagram below illustrates the design of the workflow. Please note that the generic input and output parameters are excluded from this visualization.



10. Generic input & output parameters

In the context of the antimicrobial web components, the following generic inputs and outputs are **mandatory** for all web components. These parameters are technical in nature and not directly tied to business logic.

10.1. Inputs

Each web component accepts the following input parameters, which must be provided at runtime to ensure correct operation and data processing:

Name	Type	Possible values	Description
`configName`	String	**[ACC | PROD]**	Enum type used to describe the configuration where a component is being deployed. This value serves as an identifier that allows each component to adapt its behavior based on the environment in which it is running. It may influence internal logic, such as which backend services to communicate with or which configurations to load. The accepted values are ACC (acceptance environment) or PROD (production environment). Please note that a valid access token for the PSS application is required to operate in the production (PROD) environment. This token must be obtained from eHealth following successful completion of the registration procedure.
`language`	string	**[FR | NL]**	Enum type used to describe the **language** a component should use to display information to the end user. This parameter ensures that all UI text and messages are rendered in the appropriate language context, aligning with the language settings of the host application.
`getAccessToken`	token	**<token>**	Service: function definition used by components to retrieve an access token (exchanged provided the audience). A valid authentication token obtained from eHealth is required to authorize requests made by the web components to backend services. Function signature: `type GetAccessToken = (audience:string) => Promise<string|null>`

Other services are not yet used, but that may change in the future.

Additional input parameters may be required, depending on the web component being used. These will be outlined in the chapters dedicated to each specific web component.

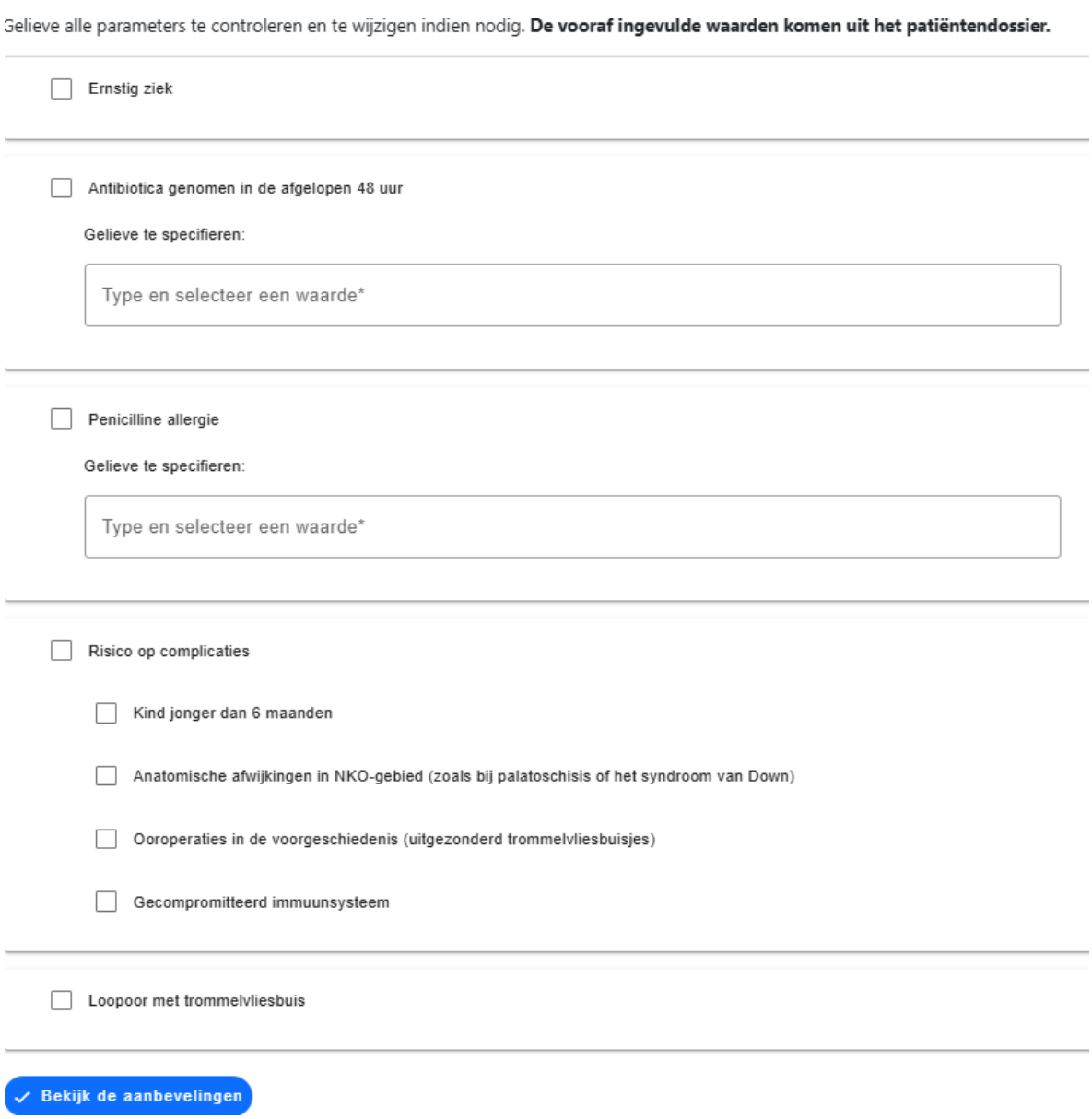
10.2. Outputs

This chapter outlines the output that the web components can emit, which the host application should handle to ensure proper error management. All outputs are type “event”.

Output	Type	Description
`onError`	`({title:string, text:string}) => void`	Fired to report an error to the host. This event should be handled by the host application to receive notifications about any errors that occur within the web components. These may include system errors, such as failed API calls or other issues originating from the PSS backend. When such an error occurs, the web component emits the `onError` event, providing relevant error details to the host for logging, user feedback, or further handling. This function can be used to display the error to the end user.

11. Get support parameters

The **`pss-amb-get-support-parameters`** component is responsible for retrieving the necessary parameters that define the context for initiating a patient situation evaluation. This component must be initialized with the common input parameters described earlier, and the indication code. The main use case of this web component is to fetch configurable support parameters that are specific to the selected indication within the antimicrobial domain. This web component enables dynamic population of UI elements (e.g., checkboxes, dropdowns, synchronized behavior of checkboxes for a code that is present in more than 1 support parameter or patient variable, etc.).



The integration process for the `pss-amb-get-support-parameters` web component consists of two main steps:

1. **Initialization Generic Parameters and Indication Code**

In the first step, the integrator must initialize the web component by providing the required generic input parameters along (described in chapter 9.1) with the `indication` code. This will trigger the retrieval of the support parameters and patient variables from PSS that are relevant to the specified antimicrobial indication.

2. **Matching Support Parameters and Patient Data**

In the second step, the integrator listens for the "`parameters`" event emitted by the component. This event provides the integrator with the support parameters and patient variables from PSS, which are relevant to the indication requested in the previous step. The integrator must then compare the support parameters and patient variables with the corresponding patient data stored in the Electronic Patient Dossier (EPD). Specifically, the integrator should match the authorized codes received from PSS, with the patient's data in the EPD. Once a match is identified, the integrator should return the relevant PSS code back to the PSS, indicating the presence of the associated parameters or variables within the "`parameters`" body .

11.1. Step 1: Initialization of Generic Parameters and Indication Code

In this step, the integrator's goal is to initialize the web component by providing the required generic input parameters (as described in Chapter 10.1) along with the `indication` code. This action triggers the retrieval of relevant support parameters and patient variables from the PSS for the specified antimicrobial indication.

11.1.1. Input

To begin, the integrator must provide the selected `indication` to the `pss-amb-get-support-parameters` web component.

Name	Status	Description
`indication`	mandatory	Software integrator provides an authorized code for the indication for which support is requested. The coding of the authorized code must contain the code system *("ICPC-2")* and the code itself *("H04").*

Each indication supported by PSS is associated with specific codes and code systems. Currently, we use the list /v1/domains/ANTIMICROBIALS/indications

Example list of authorized codes for indication: OTITIS_MEDIA_ACUTA

- *The indication 'acute otitis media' is currently linked to the internal PSS code 'OTITIS_MEDIA_ACUTA'. Multiple code systems can be used to identify this indication:*
  - *ICPC-2: otitis media acuta (H71), oorpijn (H01), loopoor (H04)*
  - *ICD-10: niet etterige otitis media (H65), acute otitis media, sereus (H65.0), …*

- ***SNOMED CT:*** *Acute otitis media (3110003),* ***Acute otitis media effusa (270490007),*** *Acute otitis media serosa (8304007), acute etterige otitis media (194281003),…*

Note: these external codes are not yet implemented for all indications. Instead, an internal PSS code is currently used to identify the indication. Example input indication “acute otitis media” :

```
"coding" : [{
    "system" : " http://snomed.info/sct",
    "code" : "270490007"
}]
```

Here is an example of the usage of the internal PSS code to identify an indication, in this context we have ***ACUTE_CYSTITIS*** as indication.

```
pss.language = 'FR';
pss.configName = configName;
pss.showPatientVariables = false;
pss.indication = {
  indication: {
    system: "PSS_INDICATION",
    code: "ACUTE_CYSTITIS"
  }
};
```

11.1.2. Output

Based on the selected indication that was given as an input, the pss-amb-get-support-parameters web component can generate an output. The output contains a list of the support parameters and patient variables required for PSS to derive support for the requested indication. This output includes the `parameters` as defined in the Decision Model and Notation (DMN) for the selected indication, along with the necessary translations, and the list of authorized codes (coded by its code system and code). The list of authorized codes enables the software integrators to verify the presence of the support parameters and patient variables in the patient file in the next step.

It is important to note that the inclusion of parameters in the output is **optional**. Some indications, such as ‘INFLUENZA’, may not have associated support parameters and, therefore, will not generate this output. This case occurs when there is only 1 recommendation available for an indication.

Name	Status	Description
`parameters`	optional	PSS returns list of support parameters & patient variables that are required to derive support for the indication

Example: `parameter` *for OTITIS_MEDIA_ACUTA*


```
{
  "supportParameters":[
    {
      "identifier":{
        "id":"ce1a8e26-3653-41a6-8a06-980eebb042d3",
        "system":"PSS",
        "code":"sp_isChildSeverelyIll_aom",
        "translations":[
          {
            "language":"FR",
            "value":"Gravement malade"
          },
          {
            "language":"NL",
            "value":"Ernstig ziek"
          }
        ]
      },
      "exclusive":false,
      "mandatory":false,
      "patientVariables":[
      ]
    },
    {
      "identifier":{
        "id":"b0677522-2d33-4881-9247-cabb1be7e107",
        "system":"PSS",
        "code":"sp_exc_48hAbIntake_aom",
        "translations":[
          {
            "language":"NL",
            "value":"Antibiotica genomen in de afgelopen 48 uur"
          },
          {
            "language":"FR",
            "value":"Prise d'antibiotique pendant 48h"
          }
        ]
      },
     "exclusive":true,
      "mandatory":false,
      "patientVariables":[
        {
          "identifier":{
            "id":"0d0ba5da-2259-cb7d-7e96-040b67dd2ab4",
            "system":"PSS",
            "code":"pv_amoxicillin",
            "translations":[
              {
                "language":"NL",
                "value":"Amoxicilline"
              },
```

```
    {
        "language":"FR",
        "value":"Amoxicilline"
    }
      ]
    },
    "authorizedCodes":[
   ]
  },
  {
    "identifier":{
      "id":"3294516c-9f08-f518-04fd-860dd8089b42",
      "system":"PSS",
      "code":"pv_cefuroxim",
      "translations":[
        {
          "language":"NL",
          "value":"Cefuroxim"
        },
        {
          "language":"FR",
          "value":"Céfuroxime"
        }
      ]
    },
    "authorizedCodes":[
    ]
  },
  {
    "identifier":{
      "id":"0f2fd1b1-6994-aa1b-c60d-186a7f8d7a4f",
      "system":"PSS",
      "code":"pv_azithromycine",
      "translations":[
        {
          "language":"NL",
          "value":"Azithromycine"
        },
        {
          "language":"FR",
          "value":"Azithromycine"
        }
      ]
    },
```


(…)

11.2. Step 2: Matching Support Parameters and Patient Data

In this second step, the integrator's goal is to listen for the "`parameters`" event emitted by the component in the previous step. The integrator must now compare the authorized codes that are linked to the support parameters and patient variables, with the patient data stored in the Electronic Patient Dossier (EPD), to identify matching codes.

11.2.1. Input

The integrators listens to the output from the `'parameters'` event in Step 1 of the `get-support-parameters` web component. The integrator examines the list of relevant support parameters and patient variables, along with their associated codes.

*Example of the patient variable "**pv_compromisedImmuneSystem**" and its authorized codes, for the indication "ACUTE_KEELPIJN":*


```
"patientVariables":[
        {
          "identifier":{
            "id":"da7adba2-2af9-9231-a61f-d3a81182c337",
            "system":"PSS",
            "code":"pv_compromisedImmuneSystem",
            "translations":[
              {
                "language":"NL",
                "value":"Gecompromitteerd immuunsysteem "
              },
              {
                "language":"FR",
                "value":"Immunosuppression / système immunitaire déprimé "
              }
            ]
          },
          "authorizedCodes":[
            {
              "system":"http://snomed.info/sct",
              "code":"234532001"
            },
            {
              "system":"http://snomed.info/sct",
              "code":"62479008"
            },
            {
              "system":"http://snomed.info/sct",
              "code":"62479008"
            }
          ]
        }
```


The integrator must compare the authorized codes with the codes present in the patient records stored in the Electronic Patient Dossier (EPD). When a match is found, the integrator must return the

relevant PSS code to the PSS, confirming the presence of the associated parameters or variables within the "`parameters`" body. The presence of the code sets the value to TRUE. Upon receiving this patient variable code, the corresponding checkbox for the "Compromised immune system" patient variable will be automatically pre-filled in the user interface. This ensures that the prescriber sees this data as checked by default, reducing manual input and ensuring consistency with the EPD.

```
"system":"PSS",
"code":"pv_compromisedImmuneSystem",
```

It is possible that no matches will be found if none of the support parameters or patient variables are applicable to the patient, or (not yet) registered in the EPD. The support parameters and patient variables supported by PSS are typically linked to specific codes and code systems. PSS will work as an extension. All “external” codes will be bound to the internal PSS code. The output parameters will represent all codes that we support (internal and external).

When the matching has been completed by the integrator, the `get-support-parameters` web component can now be displayed with the prefilled values to the prescriber. The patient situation consists of the list of support parameters and patient variables relevant to the selected indication, along with pre-filled values retrieved from the EPD. It is crucial for the prescriber to review this list carefully, as there may be cases where the pre-filled values are outdated, incomplete, or incorrect. Patient data in the EPD may not always be up to date, or certain information might not have been recorded yet in the system (*for example: pregnancy*). Additionally, some parameters may not be linked to a code because they require manual input from the prescriber. For example, questions such as “*Is the patient severely ill?”* or *“Is the diastolic blood pressure ≤ 60 mmHg?”*. These are parameters that must be observed or measured during patient visit by the prescriber.

Therefore, it is **mandatory for the prescriber to review the entire patient situation and make any necessary adjustments before he confirms the patient situation**. Confirming the patient situation results in the generation of the final output of the web component.

Name	Status	Description
`inputParameters`	optional	The software integrator signals the presence of specific support parameters or patient variables by providing the corresponding PSS codes based on the patient situation. Upon receiving these codes, the web component can pre-fill the associated values from the Electronic Patient Dossier (EPD). Additionally, for any support parameters or patient variables that match the provided codes, the relevant values in the user interface will be automatically selected. This mechanism ensures that the system dynamically reflects the patient’s situation as recorded in the EPD, reducing the need for manual data entry and improving the efficiency of the process.
`showPatientVariables`	Optional (default: true)	A boolean value that determines whether all patient variables should be expanded by default. Based on user research conducted with prescribers, the recommended behavior is to set this option to `true`, allowing all patient

		variables (and their associated prefilled values) to be displayed immediately upon loading. This eliminates the need for the prescriber to click to expand individual variables, providing a more streamlined and efficient user experience.

11.2.2. Output

Once the prescriber has reviewed the patient situation and clicked the **"Confirm"** button, the final patient situation will be saved and processed for the next steps in the workflow. This action indicates that the prescriber has validated the pre-filled data and made any necessary adjustments.

This output also includes the **PSS-ID (exchangeId).** The integrator should associate this ID with the prescription created following the consultation of the PSS recommendation.

Example PSS-ID:

```
"exchangeId":"eda0c17e-06a0-4d88-a60d-28b21ddcf2b2"
```

.

Name	Status	Description
`stepCompleted`	mandatory	When the user clicks on **"Bekijk de aanbevelingen"** (Dutch) or **"Voir les recommendations"** (French), the PSS system processes the request and generates the corresponding clinical recommendations based on the patient situation and the selected indication.

Example: output step completed for OTITIS_MEDIA_ACUTA:

- ***{"exchangeId":"047941fc-905a-4b37-bcf7-7ab4cb3cbc74"**,"responseId":"AB25","request":{"indication":{"id":"851f6183-a363-4cfd-ae5e-132755586981","system":"PSS_INDICATION","code":"OTITIS_MEDIA_ACUTA","translations":[{"language":"FR","value":"Otite moyenne aiguë (avec ou sans oreille courante)"},{"language":"NL","value":"Acute middenoorontsteking (met of zonder loopoor)"}]},"supportParameterValues":[{"identifier":{"id":"ce1a8e26-3653-41a6-8a06-980eebb042d3","system":"PSS","code":"sp_isChildSeverelyIll_aom","translations":[{"language":"FR","value":"Gravement malade"},{"language":"NL","value":"Ernstig ziek"}]},"patientVariableValues":[]},{"identifier":{"id":"b0677522-2d33-4881-9247-cabb1be7e107","system":"PSS","code":"sp_exc_48hAbIntake_aom","translations":[{"language":"NL","value":"Antibiotica genomen in de afgelopen 48 uur"},{"language":"FR","value":"Prise d'antibiotique pendant 48h"}]},"patientVariableValues":[{"identifier":{"id":"0d0ba5da-2259-cb7d-7e96-040b67dd2ab4","system":"PSS","code":"pv_amoxicillin","translations":[{"language":"NL","value":"Amoxicilline"},{"language":"FR","value":"Amoxicilline"}]},"value":"false"},{"identifier":*

{"id":"3294516c-9f08-f518-04fd-860dd8089b42","system":"PSS","code":"pv_cefuroxim","translations":[{"language":"NL","value":"Cefuroxim"},{"language":"FR","value":"Céfuroxime"}]},"value":"false"},{"identifier":{"id":"0f2fd1b1-6994-aa1b-c60d-186a7f8d7a4f","system":"PSS","code":"pv_azithromycine","translations":[{"language":"NL","value":"Azithromycine"},{"language":"FR","value":"Azithromycine"}]},"value":"false"},{"identifier":{"id":"c161e36f-75aa-df80-3e6b-f5d322fd8932","system":"PSS","code":"pv_otherAntibiotics","translations":[{"language":"NL","value":"Andere"},{"language":"FR","value":"Autres"}]},"value":"false"}]},{"identifier":{"id":"337bfb40-2393-4be5-a25a-f0c3406a503e","system":"PSS","code":"sp_exc_penicillinAllergy","translations":[{"language":"NL","value":"Penicilline allergie"},{"language":"FR","value":"Allergie à la pénicilline"}]},"patientVariableValues":[{"identifier":{"id":"4d5ebafc-80c4-65f4-5061-8e394d9430c3","system":"PSS","code":"pv_igEMediatedPeniAllergy","translations":[{"language":"NL","value":"IgE gemedieerde penicilline allergie"},{"language":"FR","value":"Allergie à la pénicilline IgE médiée"}]},"value":"false"},{"identifier":{"id":"ebc0a6f2-a770-fd17-154c-f77c2fb03733","system":"PSS","code":"pv_nonIgEMediatedPeniAllergy","translations":[{"language":"NL","value":"Niet IgE gemedieerde penicilline allergie"},{"language":"FR","value":"Allergie à la pénicilline non IgE médiée"}]},"value":"false"}]},{"identifier":{"id":"be0de77c-eb94-4286-84c8-a03b8ee2a6ee","system":"PSS","code":"sp_riskOnComplications_aom","translations":[{"language":"NL","value":"Risico op complicaties"},{"language":"FR","value":"Risque de complications"}]},"patientVariableValues":[{"identifier":{"id":"811a645b-c0dd-41d3-b2ee-276b30533062","system":"PSS","code":"pv_isInfant_aom","translations":[{"language":"NL","value":"Kind jonger dan 6 maanden"},{"language":"FR","value":"Enfant de moins de 6 mois"}]},"value":"false"},{"identifier":{"id":"17866799-1698-48d8-8b7a-fd5c4014bcbb","system":"PSS","code":"pv_anatomicalDisordersOrl_aom","translations":[{"language":"NL","value":"Anatomische afwijkingen in NKO-gebied (zoals bij palatoschisis of het syndroom van Down)"},{"language":"FR","value":"Anomalies anatomiques dans la région ORL (telles que fente palatine ou syndrome de Down)"}]},"value":"false"},{"identifier":{"id":"5b1cf35e-9a86-4b19-bc65-9dbe27b51377","system":"PSS","code":"pv_earSurgeryHistory_aom","translations":[{"language":"NL","value":"Ooroperaties in de voorgeschiedenis (uitgezonderd trommelvliesbuisjes)"},{"language":"FR","value":"Antécédents de chirurgie de l'oreille (sauf les aérateurs transtympaniques)"}]},"value":"true"},{"identifier":{"id":"da7adba2-2af9-9231-a61f-d3a81182c337","system":"PSS","code":"pv_compromisedImmuneSystem","translations":[{"language":"NL","value":"Gecompromitteerd immuunsysteem"},{"language":"FR","value":"Immunosuppression / système immunitaire déprimé"}]},"value":"false"}]},{"identifier":{"id":"d12d61ff-d658-40a4-b44a-beb53639e845","system":"PSS","code":"sp_earFluidWithEarTube_aom","translations":[{"language":"NL","value":"Loopoor met trommelvliesbuis"},{"language":"FR","value":"Écoulement au travers d'un aérateur transtympanique"}]},"patientVariableValues":[]}]},"justification":{"decisions":[{"inputs":[{"name":"pv_birthday","value":"null"}],"matchingRule":{"conditions":[{"value":"any"}],"conclusion":{"name":"ageMonths","value":"100"}}},{"inputs":[{"name":"pv_isInfant_aomOverride","v

alue":"false"},{"name":"ageMonths","value":"100"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_isInfant_aom","value":"false"}}},{"inputs":[{"name":"pv_anatomicalDisordersOrl_aomOverride","value":"false"},{"name":"pv_anatomicalDisordersOrl_aomAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_anatomicalDisordersOrl_aom","value":"false"}}},{"inputs":[{"name":"pv_earSurgeryHistory_aomOverride","value":"true"},{"name":"pv_earSurgeryHistory_aomAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"true\""},{"value":"any"}],"conclusion":{"name":"pv_earSurgeryHistory_aom","value":"true"}}},{"inputs":[{"name":"pv_compromisedImmuneSystemOverride","value":"false"},{"name":"pv_compromisedImmuneSystemAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_compromisedImmuneSystem","value":"false"}}},{"inputs":[{"name":"sp_riskOnComplications_aomOverride","value":"null"},{"name":"pv_isInfant_aom","value":"false"},{"name":"pv_anatomicalDisordersOrl_aom","value":"false"},{"name":"pv_compromisedImmuneSystem","value":"false"},{"name":"pv_earSurgeryHistory_aom","value":"true"}],"matchingRule":{"conditions":[{"value":"any"},{"value":"any"},{"value":"any"},{"value":"any"},{"value":"true"}],"conclusion":{"name":"sp_riskOnComplications_aom","value":"true"}}},{"inputs":[{"name":"sp_isChildSeverelyIll_aomOverride","value":"null"}],"matchingRule":{"conditions":[{"value":"any"}],"conclusion":{"name":"sp_isChildSeverelyIll_aom","value":"false"}}},{"inputs":[{"name":"sp_earFluidWithEarTube_aomOverride","value":"null"}],"matchingRule":{"conditions":[{"value":"any"}],"conclusion":{"name":"sp_earFluidWithEarTube_aom","value":"false"}}},{"inputs":[{"name":"pv_igEMediatedPeniAllergyOverride","value":"false"},{"name":"pv_igEMediatedPeniAllergyAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_igEMediatedPeniAllergy","value":"false"}}},{"inputs":[{"name":"pv_nonIgEMediatedPeniAllergyOverride","value":"false"},{"name":"pv_nonIgEMediatedPeniAllergyAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_nonIgEMediatedPeniAllergy","value":"false"}}},{"inputs":[{"name":"sp_exc_penicillinAllergyOverride","value":"null"},{"name":"pv_igEMediatedPeniAllergy","value":"false"},{"name":"pv_nonIgEMediatedPeniAllergy","value":"false"}],"matchingRule":{"conditions":[{"value":"any"},{"value":"false"},{"value":"false"}],"conclusion":{"name":"sp_exc_penicillinAllergy","value":"none"}}},{"inputs":[{"name":"pv_amoxicillinOverride","value":"false"},{"name":"pv_amoxicillinAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_amoxicillin","value":"false"}}},{"inputs":[{"name":"pv_cefuroximOverride","value":"false"},{"name":"pv_cefuroximAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_cefuroxim","value":"false"}}},{"inputs":[{"name":"pv_azithromycineOverride","value":"false"},{"name":"pv_azithromycineAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_azithromycine","value":"false"}}},{"inputs":[{"name":"pv_otherAntibioticsOverride","value":"false"},{"name":"pv_otherAntibiotics_aomAuthorizedCodes","value":"false"}],"matchingRule":{"conditions":[{"value":"\"false\""},{"value":"any"}],"conclusion":{"name":"pv_otherAntibiotics","value":"false"}}},{"inputs":[{"name":"sp_exc_48hAbIntake_aomOverride","value":"null"},{"name":"pv_amoxicillin","value":"false"},{"name":"pv_cefuroxim","value":"false"},{"name":"pv_azithromycine","value":"false"},{"name":"pv_otherAntibiotics","value":"false"}],"matchingRule":{"conditions":[{"value":"any"},{"value":"false"},{"value":"false"},{"value":"false"},{"value":"false"}],"conclusion":{"name":"sp_exc_48hAbInt

*ake_aom","value":"none"}}},{"inputs":[{"name":"sp_isChildSeverelyIll_aom","value":"false"},{"name":"sp_riskOnComplications_aom","value":"true"},{"name":"sp_earFluidWithEarTube_aom","value":"false"},{"name":"sp_exc_48hAbIntake_aom","value":"none"},{"name":"sp_exc_penicillinAllergy","value":"none"}],"matchingRule":{"conditions":[{"value":"false"},{"value":"true"},{"value":"false"},{"value":"\"none\""},{"value":"\"none\""}],"conclusion":{"name":"recommendation","value":"AB25"}}}]},"supportOptions":[{"id":"b8f25cd0-3817-44e7-8038-2657547741b5","score":3,"instruction":{"id":"ffe6c1f6-7dc1-4d4b-8d3b-9bd4356668cd","system":"PSS_INSTRUCTION","code":"Amoxicilline","translations":[{"language":"FR","value":"Amoxicilline"},{"language":"NL","value":"Amoxicilline"}]},"evidenceSummary":{"id":"7e2aa38d-9d9d-4c99-9950-f7dc5be81598","system":"PSS_EVIDENCE_SUMMARY","code":"4f5f5ecef86080c3a47526d9e21bbd50","translations":[{"language":"NL","value":"
\n\t
kind: 75-100 mg/kg per dag in 3 giften (max 3x1g) gedurende 5 dagen
\n
volwassene: 3x 1 g per dag gedurende 5 dagen
\n
"},{"language":"FR","value":"
\n\t
Enfant : 75-100 mg/kg par jour en 3 prises (max 3x1g) pendant 5 jours. Adulte : 3x1g par jour pendant 5 jours.
\n
"}]},"supportOptionMetadata":{}},{"id":"8e13c67b-d0f2-4a85-b83c-7d4d85ffcf1f","score":1,"instruction":{"id":"f9b7276a-84a0-490f-a94e-391d48fa6c5c","system":"PSS_INSTRUCTION","code":"Amoxicilline-acide_clavulanique","translations":[{"language":"NL","value":"Amoxicilline-clavulaanzuur"},{"language":"FR","value":"Amoxicilline-acide clavulanique"}]},"evidenceSummary":{"id":"dbf1a996-1eaf-4c39-a496-429318ab6b78","system":"PSS_EVIDENCE_SUMMARY","code":"8d6ab4c21761f48fca5616db7068277a","translations":[{"language":"FR","value":"Non indiqué"},{"language":"NL","value":"Niet aangewezen"}]},"supportOptionMetadata":{}},{"id":"55e52091-4da3-4bcc-882f-ced0a7beaea3","score":1,"instruction":{"id":"d3839b3f-7fff-4e67-bb92-d6f885a7b1a3","system":"PSS_INSTRUCTION","code":"Céphalosporines","translations":[{"language":"FR","value":"Céphalosporines"},{"language":"NL","value":"Cefalosporines"}]},"evidenceSummary":{"id":"f78dd3a0-9cbd-4ca5-b6e6-449795023e31","system":"PSS_EVIDENCE_SUMMARY","code":"28460684fca0c70981e02751b8d1f828","translations":[{"language":"FR","value":"Non indiqué"},{"language":"NL","value":"Niet aangewezen"}]},"supportOptionMetadata":{}},{"id":"265ea4f1-8b39-4efa-ba5d-1e85b03f9d62","score":1,"instruction":{"id":"815e2595-ae4b-48cd-88b3-85ff4104c09b","system":"PSS_INSTRUCTION","code":"Quinolones","translations":[{"language":"FR","value":"Quinolones"},{"language":"NL","value":"Chinolonen"}]},"evidenceSummary":{"id":"cca8da73-5ead-4b9d-8e57-aced7023a708","system":"PSS_EVIDENCE_SUMMARY","code":"00c7117afc9f464d25206d4dd9dfa58d","translations":[{"language":"FR","value":"Non indiqué"},{"language":"NL","value":"Niet aangewezen"}]},"supportOptionMetadata":{}},{"id":"d7cc40dc-a0c9-4d22-a752-895edf98c003","score":1,"instruction":{"id":"f3cce1c0-05aa-445a-b64c-f70e7d051d68","system":"PSS_INSTRUCTION","code":"Macrolides","translations":[{"language":"FR","value":"Macrolides"},{"language":"NL","value":"Macroliden"}]},"evidenceSummary":{"id":"22b4c137-fc20-41d5-984f-5eff4b1fa6e8","system":"PSS_EVIDENCE_SUMMARY","code":"c71b61329723f6f9e1de9d34b*

c71c437","translations":[{"language":"FR","value":"Non indiqué"},{"language":"NL","value":"Niet aangewezen"}]},"supportOptionMetadata":{}},{"id":"b7a8ecb2-82a0-44ed-bf95-035fe76b8628","score":1,"instruction":{"id":"2ac26882-3fc0-4e02-89d4-31cdfb06b0d3","system":"PSS_INSTRUCTION","code":"Tétracyclines","translations":[{"language":"FR","value":"Tétracyclines"},{"language":"NL","value":"Tetracyclinen"}]},"evidenceSummary":{"id":"5132a7a1-e23e-46a2-857c-e173739fbe4b","system":"PSS_EVIDENCE_SUMMARY","code":"70eec6da0ae526f40a6a5750b88c9388","translations":[{"language":"FR","value":"Non indiqué"},{"language":"NL","value":"Niet aangewezen"}]},"supportOptionMetadata":{}}],"externalLinks":[{"id":"0ac0d594-2c8a-4ea2-8188-152b404225d9","codifiedValueLinks":{"id":"aa4e845d-6b97-4cda-b032-3995a66fbfac","system":"PSS_BABCOC_LINK","code":"LINK12","translations":[{"language":"FR","value":"https://www.cbip.be/fr/chapters/12?frag=8000119"},{"language":"NL","value":"https://www.bcfi.be/nl/chapters/12?frag=8000119"}]},"codifiedValueLabels":{"id":"a664b91d-bd21-467d-a566-b30c939b9361","system":"PSS_BABCOC_LINK_LABEL","code":"LINK12","translations":[{"language":"FR","value":"Plus de détails sur le site CBIP"},{"language":"NL","value":"Meer details op de BCFI site"}]}}],"disclaimer":[{"language":"FR","value":"Cette application web est destinée uniquement à un usage éducatif pour soutenir la prescription responsable d'antibiotiques. Les recommandations sont basées sur le guide belge de traitement anti-infectieux en pratique ambulatoire, publié par BAPCOC et ne peuvent donc être utilisées que pour ce domaine d'application et des domaines d'application similaires."},{"language":"NL","value":"Deze webapplicatie is uitsluitend bedoeld voor educationeel gebruik ter ondersteuning van het verantwoord voorschrijven van antibiotica. De aanbevelingen zijn gebaseerd op de Belgische gids voor anti-infectieuze behandeling in de ambulante praktijk, uitgegeven door BAPCOC en kunnen dus enkel gebruikt worden voor dit en gelijkaardige toepassingsgebieden."}]}

12. Summary of the patient situation

The **`pss-amb-summarized-patient-situation`** web component provides a comprehensive, summarized view of the patient's situation based on the relevant support parameters and patient variables. The main function of this component is to display a concise summary of the patient's condition by listing the support parameters that are considered as present for the patient.

12.1. Input

The primary goal of the pss-amb-summarized-patient-situation web component is to present a summary of the patient situation that is used to derive clinical support. The summary includes all the support parameters and patient variables that are marked as TRUE for the selected indication. This allows the prescriber to quickly review the relevant clinical data (and see the applied hierarchy behind it).

If there are no support parameters linked to the selected indication, or if none of the support parameters are applicable to the patient, a specific message will be displayed in the web component to ensure the user is informed and to avoid confusion.

The input for this web component is based on the output of the previous web component, `pss-amb-get-support-parameters`, which provides the necessary data for the patient's situation.

Name	Status	Description
`supportResponse`	mandatory	The input for this event is the output `stepCompleted` of the `pss-get-supportParameters` web component

The integrator has the option to control whether the title for the patient summary is displayed, by setting the Boolean parameter `showTitle`. The need to display the title may vary depending on where the web component is placed in the application.

- If `showTitle` is set to FALSE, the title will not be displayed, and only the content of the patient summary will be shown.
- If `showTitle` is set to TRUE, the title will be displayed in the appropriate language:
  - NL (Dutch): "Patiënt parameters voor [indication]"
  - FR (French): "Paramètres du patient pour [indication]"

This gives the integrator flexibility in the presentation of the patient summary, ensuring it aligns with the overall UI design and user experience.

Name	Status	Description
showTitle	Optional (default true)	This boolean parameter determines whether the title of the patient summary is displayed within the web component.

Reuse example: output `stepCompleted` *for OTITIS_MEDIA_ACUTA from the previous chapter.*

12.2. Output

The `pss-amb-summarized-patient-situation` web component does not generate any output. Its primary function is to provide a visual representation of the patient situation.

The display of the summary, helps the prescriber to have a clear and up-to-date view of the relevant support parameters and patient variables that were used to derive the clinical support.

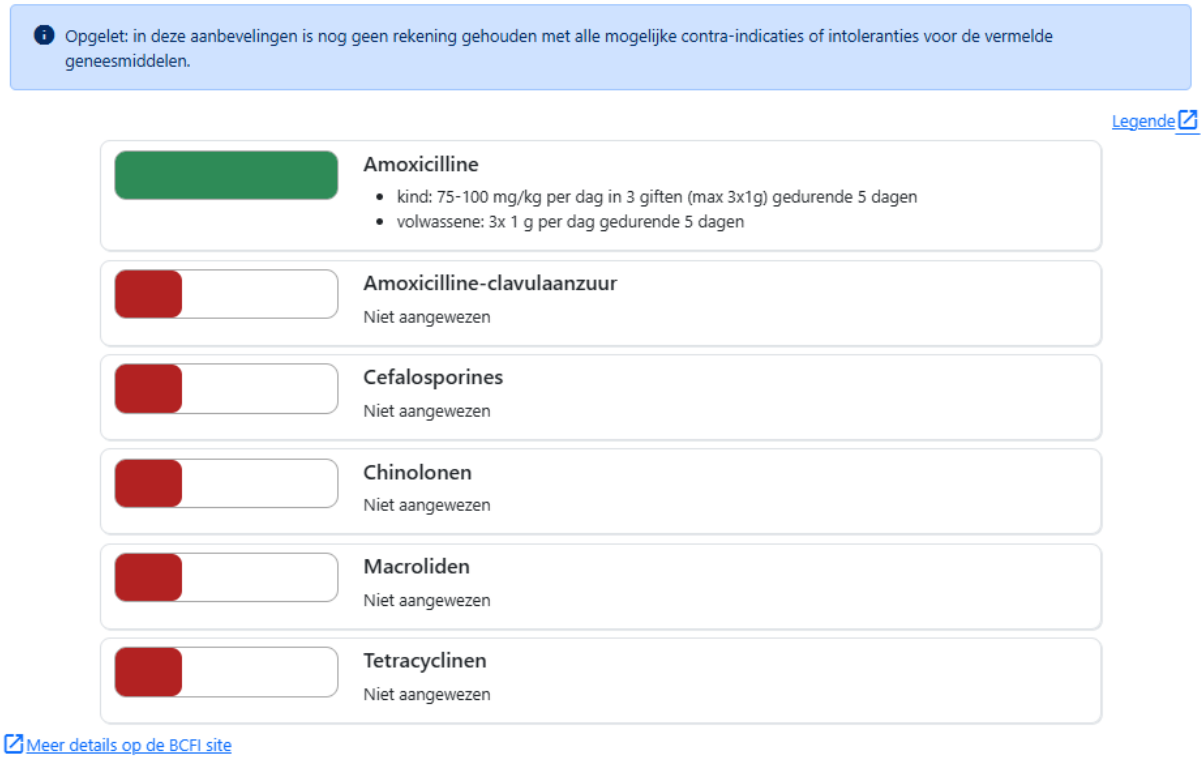
This web component does not produce any data output for further processing.

13. Get recommendations

The **`pss-amb-recommendations`** web component is responsible for providing clinical recommendations based on the patient situation and the selected indication within the antimicrobial domain. This web component processes the information about the patient's condition, derived from the previous web components. In the future, the goal is for the web component to generate actionable recommendations that will assist the prescriber in making informed treatment decisions.

The `pss-amb-recommendation` component takes into account the relevant support parameters, patient variables, and clinical guidelines to provide tailored suggestions. These recommendations can include treatment options, dosage adjustments, or further diagnostic steps, depending on the specific context of the patient.

The recommendations include links to supporting scientific evidence and may feature warnings or disclaimers, which are managed by the guideline managers.



13.1. Input

Name	Status	Description
supportResponse	mandatory	The input for this event is the output `stepCompleted` of the `pss-get-support-parameters` web component

The output of the **`stepCompleted`** event in the `pss-get-support-parameters` includes the list of recommendations. This list of recommendations is used as an input for the `pss-amb-recommendation` web component.

Reuse example: output step completed for OTITIS_MEDIA_ACUTA from the previous chapter.

Name	Status	Description
showDisclamer	optional default true	boolean to show the disclamer (true/false) by default on TRUE

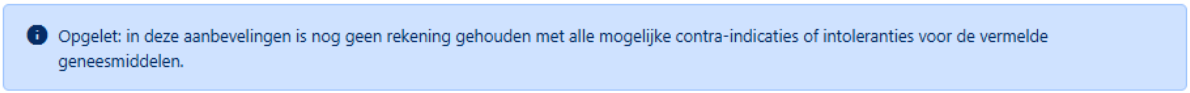
The integrator has the option to control the display of a disclaimer related to the recommendations, using the `showDisclaimer` Boolean parameter.

- If `showDisclaimer` is set to TRUE, the disclaimer will be displayed automatically inside the web component, as defined by the PSS system. This disclaimer may include important

information relevant to the recommendations, such as context, limitations, or additional guidance for the prescriber.

- If `showDisclaimer` is set to FALSE, the integrator is responsible for developing and displaying the disclaimer themselves. In this case, the integrator must ensure that the disclaimer is placed close to the recommendations returned by the PSS system to maintain clarity and relevance.

This flexibility allows the integrator to either use the built-in disclaimer provided by the PSS system or create a custom disclaimer that suits their specific use case or regulatory requirements.

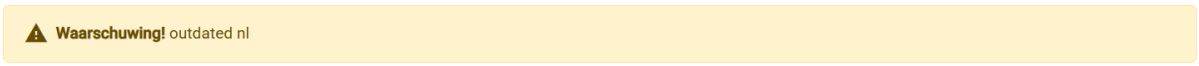


Name	Status	Description
showWarning	optional	boolean to show the warning (true/false) by default TRUE

The integrator has the option to control whether a warning related to the recommendations is displayed, using the `showWarning` Boolean parameter.

- If `showWarning` is set to TRUE, the warning will be automatically displayed by the PSS system. This warning may include important information that is relevant for the recommendation, such as a notification that the recommendation may be outdated due to changes in clinical guidelines.
- If `showWarning` is set to FALSE, the integrator is responsible for developing and displaying the warning themselves. In this case, the integrator must ensure that the warning is placed in close proximity to the recommendations returned by the PSS system, ensuring that it is contextually relevant and visible to the prescriber.

This parameter provides flexibility for the integrator to either use the built-in warning or create a custom one based on specific use cases, guidelines, or requirements.



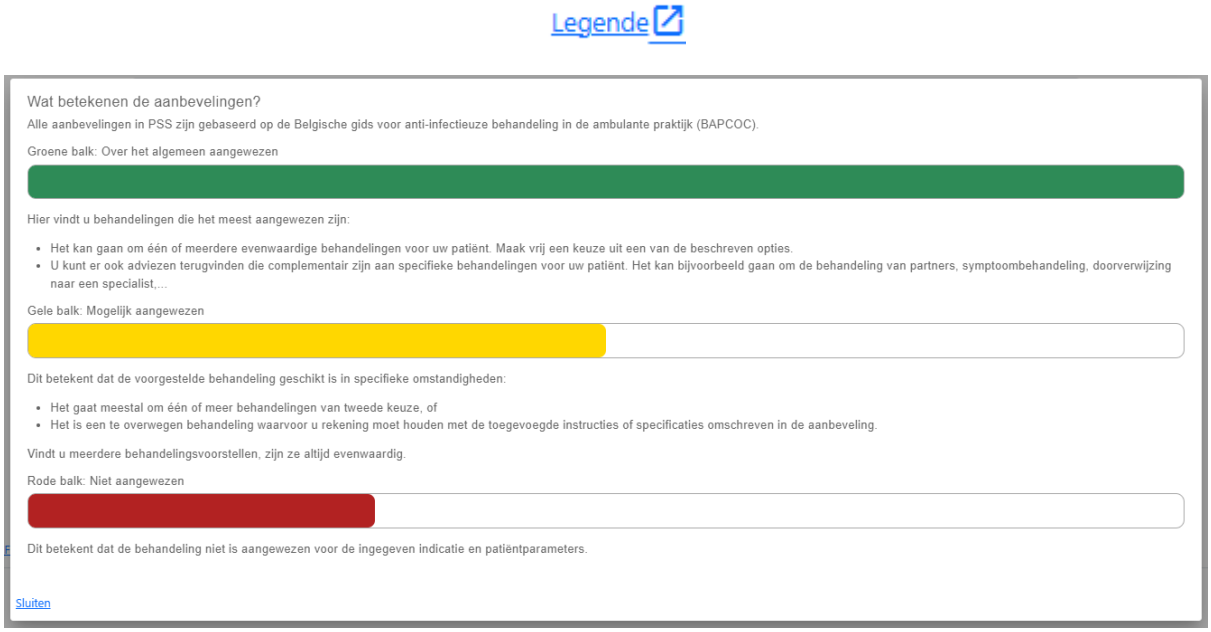
Name	Status	Description
showLegenda	optional	boolean to show the legenda link (true/false) by default TRUE

The integrator has the option to control whether the legend, which provides additional information about the scoring system, is displayed, using the `showLegend` Boolean parameter.

- If `showLegend` is set to TRUE, the legend will be automatically displayed by the PSS system, offering context and details about the scoring system used in the recommendations.
- If `showLegend` is set to FALSE, the integrator is responsible for developing and displaying the legend themselves. In this case, the integrator must ensure that the legend is positioned

close to the recommendations returned by the PSS system, ensuring clarity and relevance for the prescriber.

This parameter provides flexibility, allowing the integrator to either use the built-in legend or create a custom legend that meets their specific use case, user interface design, or requirements.



13.2. Output

When the prescriber selects one of the support options and successfully submits their conclusion, the `userConclusionSubmitted` event is triggered. This event indicates that the prescriber has completed the consultation of the recommendations and confirmed his conclusion.

The integrator can capture this confirmation message through the `userConclusionSubmitted` event and adapt the output to fit their own style guide for confirmation messages. This flexibility ensures that the confirmation message aligns with the integrator's UI/UX design and provides a consistent user experience within their application.

Name	Status	Description
`userConclusionSubmitted`	optional	event to know that the PSS flow is finished, all data can be cleared

14. Styling

Web components provide support for styling but the actual styling definition can be managed by the integrators. The styling of the web components can be overridden only through a palette definition or theming approach. This enables integrators to apply their own visual guidelines to ensure consistency with their platform's overall design. Additionally, the use of Boolean parameters offers more flexibility, allowing integrators to develop certain elements independently. This allows integrators to adjust the look and feel of the components according to their application's design requirements.

15. Responsiveness

We aim to optimize the responsiveness of the web components to ensure a smooth and efficient user experience, no matter the screen size or resolution. We need additional testing and are open to your feedback based on your experiences while integrating the web components.

16. Host responsibilities

The key requirement is that the EPD software integrator must supply PSS with the patient data relevant to the selected clinical indication. It is the integrator's responsibility to initiate communication with the PSS module and request a recommendation. **PSS will not autonomously fetch patient data**—neither from the EPD nor from external data sources such as Vitalink, RSW, or RSB. Therefore, the integrator must ensure that all necessary patient data is made available to the PSS at the appropriate time.

It is the responsibility of the host application to define the navigation and routing mechanisms that work best for their environment. This includes managing how users navigate between pages and how web components are integrated into the host's interface.

Hosts are also fully responsible for user authentication. This includes ensuring that the necessary tokens are provided to web components for secure and authenticated access to backend services.

17. Other elements to be developed by the integrator

17.1. Disclaimer

When a professional is using PSS antimicrobial for the first time, then it is mandatory to display a disclaimer. The user must be able to confirm that he read the disclaimer and to "not show it again". The development of the disclaimer pop-up should be handled by the integrators.

The disclaimer should contain the following content:

NL	De aanbevelingen zijn gebaseerd op de Belgische gids voor anti-infectieuze behandeling in de ambulante praktijk, uitgegeven door BAPCOC en kunnen dus enkel gebruikt worden voor dit en gelijkaardige toepassingsgebieden. De aanbevelingen dienen slechts ter ondersteuning bij het voorschrijven en zijn geen vervanging van de medische expertise van de voorschrijver.
FR	Les recommandations sont basées sur le guide belge de traitement anti-infectieux en pratique ambulatoire, publié par BAPCOC et ne peuvent donc être utilisées que pour ce domaine d'application et des domaines d'application similaires. Les recommandations sont uniquement destinées à aider à la prescription et ne remplacent pas l'expertise médicale du prescripteur.
DE	Die Empfehlungen basieren auf dem belgischen Leitfaden für die antiinfektiöse Behandlung in der ambulanten Praxis, herausgegeben von BAPCOC, und können daher nur für diesen und ähnliche Anwendungsbereiche verwendet werden. Die Empfehlungen sollen lediglich als Hilfestellung bei der Verschreibung dienen und ersetzen nicht die medizinische Fachkompetenz des verschreibenden Arztes.
EN	The recommendations are based on the Belgian guide for anti-infectious treatment in outpatient practice, published by BAPCOC and can therefore only be used for this and similar areas of application. The recommendations are only intended to support prescribing and are not a substitute for the medical expertise of the prescriber.