

DPV: documentation CGM/FGM

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Chapter 1

Documentation in follow-up input mask

You can find all relevant data for the documentation of CGM-/FGM-data on the tab "metabolic control-self monitoring" in the follow-up input mask.

You can document the amount of days that the patient has used a CGM-/FGM-device in the field "cont. gluc. measurement". These are the days since the last documentation, maximum for one year.

cont. gluc. measurement	days	
	Days since last documentation, max. one year back	

Figure 1.1: Input field for amount of days with CGM/FGM

You can copy the amount of days since the last follow-up with the button "cont." if the patient has used a CGM-/FGM-device without interruptions.



Figure 1.2: Copy amount of days since last follow-up

Please document additional blood glucose measurements in the field "blood glucose / week".

blood glucose	🗘 /week
	Number of capillary BG measurements
gluc. measurement	davs

Figure 1.3: Number of capillary BG measurements

You can document information about the used CGM-/FGM-device in the region "CGMS".



Figure 1.4: Input fields for device and indication.

If it is not possible for you to import sensor raw data into DPV, you can enter a few values manually in the region "profiles". The data relates to the last two weeks.

promes			
The following data ref	ers to the last two weeks:		
average glucose		mg/dl	
GMI (Glucose Management Indicator)		%	
coefficient of variation		%	
proportion glucose > 250 mg/dl			%
proportion glucose > 180mg/dl and <= 250mg/c			%
proportion glucose > 180 mg/dl		%	
proportion Time in Range (70-180 mg/dl)		%	
proportion glucose < 70 mg/dl		%	
proportion glucose >= 54 mg/dl and < 70 mg/dl			%
proportion glucose < 54 mg/dl			%
number of scans per day			
average glucose GMI (Glucose Management Indicator) coefficient of variation proportion glucose > 250 mg/dl proportion glucose > 180mg/dl and <= 250mg/c proportion glucose > 180 mg/dl proportion Time in Range (70-180 mg/dl) proportion glucose < 70 mg/dl proportion glucose < 70 mg/dl proportion glucose < 54 mg/dl		mg/dl % % % % %	% % %

Figure 1.5: manual documentation of CGM-/FGM-values

Chapter 2

Export of CGM-/FGM-data from the respective software

DPV has no direct access to the CGM-/FGM-devices. Therefore, You have to import the CGM-/FGM-data into the respective software of the CGM-/FGM-manufacturer before you can import the data into DPV.

Please ensure that the sensor is using the correct date and the correct time before you export the data. Otherwise meaningful analysis of day/night or work day/weekend are not possible.

Processing of sensor data saved as a PDF report is not possible.

Please contact us if one of the following descriptions should not work for you.

2.1 Abbott – FreeStyle CoPilot

You can export the measured data via the menu item "File > Export".



Figure 2.1: Export of the data from FreeStyle CoPilot software

2.2 Abbott – FreeStyle Libre

Measured data can be exported from the FreeStyle Libre software into a temporary file via the menu item "File > Export Data".



Figure 2.2: Export of the data from FreeStyle Libre softwar

2.3 Abbott - LibreView

After selecting the patient using the patient list, the export of the data can be accessed by clicking the "Profile" link at the top of the left.

		Q Search Patients	**	
		۲	Profile	
a Pr	ofile		Identity	Identity LibreView Account
_ ⊆ Gli	ucose Hi	story	±	My Practices
			Age Date of birth Email	

Figure 2.3: Accessing the patient profile

You can download the patient's glucose values using the link "Download glucose data".



Figure 2.4: Download glucose data

Before the download can be started, you have to verify that you are not a robot. The data can then be downloades using the "Download" button.

Glukose-Werte herunterladen	
Durch Klicken auf "Herunterladen" übernehmen Sie die alleinige Verantwortung für die Daten,	
einschließlich der Sicherheit der Daten, nachdem diese die LibreView-Anwendung verlassen	
Ich bin kein Roboter. Datenschutzerklärung - Nutzungsbedingungen	
Sie müssen bestätigen, dass Sie kein automatischer Prozess sind, indem Sie das Kästchen "Ich bin kein Roboter" markieren	
Abbrechen Herunterladen	\
	/

Figure 2.5: Verification and download of glucose data

2.4 Dexcom Clarity

You can export the data via "Patient list" > "Export".



Figure 2.6: Export of the data from Dexcom Clarity

2.5 Dexcom Studio

The Dexcom Studio software can be downloaded via http://www.nintamed.eu/-> Tab "Service" -> "Dowloads" -> "Dexcom G4 Platinum System" -> "Software". You can export the desired patient via the tab item "Patient data" > "Export data". You can choose between the formats "TXT" and "XML". DPV can handle both formats.

Ξ		Dexcom Studio™			- 🗆 ×
Datei Werkzeuge	Hilfe		Ziel Blu	tzucker	
Hoexcom		ytryt		2.	
Start	Muster	Stündliche Statistik	Tägliche Trends	Blutzuckerve	rteilung
~~~~		<b>İ</b>			8
Blutzuckertrend	Tägliche Statistik	Erfolgsbericht	A1c-Einträge	Patienten	Optionen
	Anzeigename Seriennumme	r 🔺 Vorname Nachname Zweite	r Vorname Initialen Rufname	Patientennummer Patier	iten-ID Ander
Als aktuell auswählen					
Patient bearbeiten					
Zielbereich bearbeiten	)				
Patient entfernen	1				
Daten exportieren					
Patientendatei laden					
Patientendatei speichern					
Patientendatei an technischen Support senden					

Figure 2.7: Export of the data from Dexcom Studio

#### 2.6 Diabass

You can start the export of data in Diabass via the menu item "Administration".

Verwaltung	Import	1 Patient	eHbA1c	AVG	TIR %	HYPO 0%	✓ Einstellungen	DIABASS [®]
Patientenlis	ste Neu eingangene	e Daten Info-Zentrale Stat	istik					Neuer Patient
Suchen	9							

Figure 2.8: Menu item "administration"

Please then search for the desired patient using the search field and select the patient by clicking on it.

Verwaltung	Import Analyse	L Patient	. 🗀 📔				🗟 Drucken		
Patientenliste Neu eingangene Daten Info-Zentrale Statistik									
Anzahl:1									
Ø≑	Image: bit is a standard								

*Figure 2.9: Patient search in Diabass* 

The following window should then be displayed. The patient's data can be exported by clicking on the button "print" in the upper right corner.

Venvaltung	1 Patient	eHbA1c AVG TIR	НҮРО	► Einstellungen DIABASS ^{® PRO} DIABASS ^{® PRO} DIABASS ^{® PRO}
	<b>իերորությունի թունի իրանինը։</b> 1.00.20 01.10.20 01.11.2	ации продания и продани 20 01.12.20 01.01.2021 0	<b>При 104 али /b>	
Glukoseverlauf × Standardtag	AGP AGP AGP AGP AGP Ana	lyse x 7 Tage-Bericht x		* e
24		- Gilaiose O SMBG Pumperbolus Koh	enhydrate (g)	75 70 65

Figure 2.10: Calling the export via "print" button in patient data

In the dialogue that now appears, please activate the option "Data export as Excel file". You can then start the export of the data by clicking on the button "OK".



Figure 2.11: Export of the data via "print"

#### 2.7 Diasend

You can create Excel files for individual patients via "Composition" yourself. Please first select the time interval for which you want to export data. Please then scroll to the bottom of the site. To generate the Excel file please click the button "Export to Microsoft Excel".



November 18, 2015

#### Information update: Dexcom G5[™] compatibility with Diasend

We understand that some of the previous information regarding the compatibility between Dexcom G5[™] and Diasend has caused some confusion. Therefore, here comes a short clarification, the roll-out plan and an FAQ segment. As mentioned earlier, compatibility will be available in pre-determined markets and the method of data transfer varies.

#### Data transfer and availability

The new Dexcom  $G5^{\mathbb{M}}$  Mobile CGM System has two options. It can be used together with the Dexcom  $G5^{\mathbb{M}}$  Mobile Receiver as a "standard CGM unit". Or it can be used together with an iPhone and the Dexcom app to make the iPhone act as a receiver. This solution is called the Dexcom  $G5^{\mathbb{M}}$  Mobile CGM System and the data is wirelessly transferred to the Dexcom cloud.

How to upload data from Dexcom G5™ into diasend®	US	Rest of the world
<b>Cloud to cloud</b> Dexcom G5 [™] Mobile CGM System - The data is wirelessly transferred via an iPhone and stored in Dexcom's cloud. This data is then seamlessly integrated into the diasend [®] cloud by adding the Dexcom G5 [™] in the connected apps section in your diasend [®] Personal account.	Available in Q2 2016*	•
diasend® Transmitter Data from the Dexcom G5™Mobile Receiver can be uploaded into diasend® by using a micro USB cable and a diasend® Transmitter at a clinic.	<b>√</b>	<b>√</b>
diasend [®] Uploader Data from the Dexcom G5 [™] Mobile Receiver can be uploaded into diasend [®] by using a micro USB cable and the diasend [®] Uploader software.	Within the next month	Within the next month

* For more information on cloud to cloud availability in the US, please contact Dexcom's customer service.





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### How to upload Dexcom G5™ Mobile - cloud to cloud

(Currently not available in the US)

#### Requires an iPhone and Dexcom's G5™ Mobile app

If you are using an iPhone to act as a receiver, it is possible to transfer data wirelessly from Dexcom's cloud directly into diasend[®].







- When can I upload my Dexcom G5[™] Mobile Receiver from home (via my diasend[®] personal account)?
   a. The current time frame is to have an update released within the next month.
  - b. In the meantime, if your clinic has a diasend[®] Clinic account and a diasend[®] Transmitter, you can upload at the clinic.
- 2. Will my Dexcom G5[™] data sync seamlessly with Diasend?
  - a. Yes, as long as this is available in your country/region and you have an iPhone. The data will sync to diasend[®] with a 3 hour delay, due to regulatory restrictions.
- 3. I have an Android phone and/or the Dexcom G5[™] Mobile System is not yet available in my country. Can I still upload data via diasend[®]?
  - a. Yes. Provided that you have a Dexcom G5[™] Mobile Receiver and that your clinic has a diasend[®] Clinic account and a diasend[®] Transmitter. If so, you will have the ability to upload at the clinic.
- 4. Can my health care provider upload my Dexcom G5[™] data?
  - a. Yes, as long as your health care provider has a diasend[®] Clinic account and a diasend[®] Transmitter, then your device can be uploaded at the clinic.
- 5. Can I view my Dexcom G5[™] data from home if my receiver was uploaded at the clinic?
   a. Yes. As long as you have entered your Dexcom G5[™] serial number into your account, under patient profile.
- 6. My Dexcom G5[™] data has wirelessly transmitted to my iPhone, but the data does not show up in my diasend[®] Personal account, why?
  - a. There is a 3 hour delay for the data to transfer to diasend due to regulatory restrictions.
- 7. I have an iPhone. How do I seamlessly connect my Dexcom G5[™] data to Diasend?
   a. Login to your diasend[®] Personal account. Press the Connect App button. Then, under the Dexcom G5[™] app, press connect and enter your Dexcom credentials.

## Any other questions?

Should you have any other questions, please do not hesitate to contact our customer support.



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#### 2.8 Glooko

On the "Summary" tab, you can export the patient's data using the "Export as CSV" link.

glooko Name	•••
Zusammenfassung         Diagramme         Protokoll         Einblicke         Geräte	
Profil Geburtsdatum: Diabetes: Typ 1	
PDF-Bericht erstellen  Als CSV exportieren	
Zeitraum: 2 Wochen ~ Messwerte: BZ CGM	

Figure 2.12: CSV export via tab "Summary"

In the next step, you can select the period for which the data should be exported. The export of the data can be started using the "Export" button.

	×
Als CSV exportieren	~
Achtung!	
Sie sind im Begriff, vertrauliche Gesundheitsdaten von der Glooko-Plattfo zu exportieren. Sie sind für die Sicherheit dieser Informationen und deren Verwendung in Übereinstimmung mit allen geltenden Datenschutzbestimmungen und -vorschriften verantwortlich.	rm
Zeitraum für den Export auswählen:	
2 Wochen V	
Klicken Sie für weitere Informationen auf hier.	
Cancel Export	

*Figure 2.13: Selection of period and export* 

#### 2.9 Medtronic – CareLink Personal

You can export the measured data via "Reports > Data Export (CSV)".



Figure 2.14: Export of the data from CareLink Persona

#### 2.10 Medtronic – CareLink Pro

You can export the measured data via the button "Export selected data".



Figure 2.15: Export of the data from CareLink Pro

### 2.11 myDiabby

The period for the data export can be selected via "Profile" in the patient data. The period should be set to 3 months. Then the action "CSV export" can be started using "Further actions".

● DTI @ En cours @ ◎ 医 1 分 Q 2 @ @ 當 ☆☆☆☆	Données de santé : IMC : données manquantes Dernière HbAlc - Traitement : Mesure de glycémie : Traitement oral : - Insulinothérapie :	Inscription et co Inscrit le . Dernière connexi Équipe soignant Référent diabeto PSAD :	nnexions : on le : e : : 2	Exporter dossier PDF Importer un fichier.CSV FreeStyle Libre Paramétrages pompe ••• Autres actions Évènements dossier patient Exporter données CSV	Données cz
Tableau de bord		Profil	u semainier	titi exportation des donn	ées en format CSV
Données cliniques				+ k chiver	J
Informations		Dernières données disponibles	<ul> <li>1 semaine 2 semaines</li> </ul>	1 mois 3 mols	

Figure 2.16: Export of CSV data

In the next window, the type of data to be exported can be selected. Please select the option "Glycaemia, insulins, punctual data" and then click the button "Validate".

EXPORTER LES DONNÉES PATIENTS	$\otimes$
Sélectionner les éléments à exporter	
Glycémies, insulines et données ponctuelles	
<ul> <li>Informations patient</li> </ul>	
Messages	
	44 0~

Figure 2.17: Selecting data for export

#### 2.12 Roche - Accu Chek SmartPix software

Using the tab "Interfaces" in the system parameters in DPV you can install a plugin for the Accu Chek Smart Pix software which lets you export the sensor data from the Accu Chek SmartPix software. Please note that the Accu Chek SmartPix software must be running during the installation of the plugin.

Installation of plugins		
	Plugin for data export in Accu-Chek® SmartPix	Install

Figure 2.18: Installing the plugin for Accu Chek SmartPix software

Using the menu item "Device settings > DPVExport" in the patient data you can export the sensor data from the Accu Chek SmartPix software.

<b>P</b>	
Set date and time	Ctrl+Alt+F2
Configure meter	Ctrl+Shift+F2
Plugins from other pro	oviders
DPVExport	
<b>O</b> , Adjust menu	Ctrl+C

Figure 2.19: Export of the data from the Accu Chek SmartPix software

#### 2.13 Tidepool

You can access the settings via the settings button (cogwheel) next to the patient name.

TIDEPOOL Ben Dead	Logged in as	*
-------------------	--------------	---

Figure 2.20: Accessing the settings in Tidepool

You can export the data of the patient in the settings in the section "EXPORT MY DATA". Please select the desired time period and the desired unit for the glucose. The export can be started using the button "Export".

EXPORT MY DATA	_		-		]		
	Export my data from:	20.03.2021	to to	19.04.2021			
	All Data   Last 90 Days	Last 30 Days   Las	t 14 Days				
	Units: 💿 mg/dL 🔿	mmol/L					
	File type:   Excel	) JSON					
							Export

*Figure 2.21: Export of the data from Tidepool* 

Please note that only data exported as "Excel" is currently supported. Data in the format "JSON" can not be processed.

# Chapter 3

# Import of data in DPV

#### 3.1 Import of CGM-/FGM-data

You can import adequate files via the button "import CGM-/FGM-data".



*Figure 3.1: Button for the import of CGM-/FGM-data.* 

<b>1</b>	Open			×
		~ C	Search CGMS	Q
Organise 🔻 New folder			1 <b>•</b>	
☆ Favourites	<u>^</u>		Date modified	Туре
Desktop     Desktop     Desktop	h		18/01/2017 12:47	XML File
Recent places				
🤣 Homegroup				
🛤 This PC				
📜 Desktop				
Documents				
😹 Downloads				
👔 Music				
Pictures				
🗎 Videos 🗸 🗸				>
File name: beispiel.xml		¥	CGM-/FGM-data (*.csv)	v lsc*;tst;*.al
			<u>O</u> pen	Cancel

Figure 3.2: Selection of a file with CGM-/FGM-data

After the sensor data has been imported successfully the imported data will be shown in prepared form directly.

profiles	
✓ filter period of time	
period	19/04/2023 00:00:00 - 02/05/2023 10:11:00
number of days with sensor	14
number of measurements	3768
average glucose	134.43 mg/dl
GMI (Glucose Management Indicator)	6.53 %
coefficient of variation	37.97%
proportion glucose > 250 mg/dl	2.02%
proportion glucose > 180mg/dl and <= 250mg/c	17.57%
proportion glucose > 180 mg/dl	19.59%
proportion Time in Range (70-180 mg/dl)	73.65%
proportion glucose < 70 mg/dl	6.77%
proportion glucose >= 54 mg/dl and < 70 mg/dl	6.13%
proportion glucose < 54 mg/dl	0.64%
number of scans	0
number of scans per day	0.00

Figure 3.3: Imported data in the CGM input mask

Additionally the sensor data will be displayed in various graphics.

profiles			
· 📭 👔			
• filter period of time			
period	19/04/2023 00:00:00 - 02/05/2023 10:11:00		
number of days with sensor	14	single values	trend line
number of measurements	3768		300
average glucose	134.43 mg/dl		200
GMI (Glucose Management Indicator)	6.53 %	1041 ²⁰²³ 1041 ²⁰²³ 1041 ²⁰²³ 1051 ²⁰²³	100
coefficient of variation	37.97%	151 13n 130 62	00:00 12:00 00:00
proportion glucose > 250 mg/dl	2.02%		
proportion glucose > 180mg/dl and <= 25	17.57%		
proportion glucose > 180 mg/dl	19.59%		
roportion Time in Range (70-180 mg/dl)	73.65%	individual days	
proportion glucose < 70 mg/dl	6.77%	300 - Marine 10 A	
proportion glucose >= 54 mg/dl and < 70	6.13%	200	
proportion glucose < 54 mg/dl	0.64%		
number of scans	0	00:00 12:00 00:00	
number of scans per day	0.00		

*Figure 3.4: Imported data in the CGM input mask with graphics* 

The following graphics will be displayed:

- **single values**: every measured value will be displayed as a point
- **trend line**: line: median, dark brown surface: 20th 80th percentile, light brown surface: 5th 95th percentile, time range: latest 20 days
- individual days: layered intraday values of the latest 30 days

Graphics will be displayed enlarged while hovering over the graphic with the mouse.



Figure 3.5: Enlarged display of the individual days

Only the most current sensor values related to the current visit date are displayed in the input mask (30 days before examination date). A prompt appears if the imported sensor data does not match the current visit date. The sensor data can then be assigned to another existing visit. Or a new visit can be created directly.

9	9	×
	date	The imported CGM data (period from 23/05/2017 to 28/09/2017) do not
	12/10/2017	match the current follow-up $(11/04/2019 00:00:00 \pm 90 \text{ days})$ .
		Please select a date from the list on the left or create a new follow-up to assign the imported CGM data to an follow-up in DPV.
_		
	сору	
	Add new patient visit	

Figure 3.6: Assignment of imported sensor data to another visit

#### 3.2 Import of basal rate data

Some of the export files (e.g. CareLink Pro, Diasend, ...) can contain additional data on basal rates. The basal rate data is automatically processed during the import of sensor data.

If basal rate data was processed when importing sensor data, a corresponding message is displayed in DPV.



Figure 3.7: Note, that basal rate data has been processed

The processed basal rate data can only be imported via the pump input mask. In this way, DPV ensures that the documentation is complete and that there are no inconsistencies in the insulin therapy.

The basal rate data is imported directly when the pump input mask is called. Depending on the type of data imported, the basal rate is imported directly or a selection is displayed for which date the basal rate will be imported.

date	
20/05/2019	
19/05/2019	
18/05/2019	
17/05/2019	
16/05/2019	
15/05/2019	
14/05/2019	
13/05/2019	
12/05/2019	
11/05/2019	
10/05/2010	

*Figure 3.8: Selection of the date for which basal rate data should be imported* 

After selecting the date, you can import the basal rate values by clicking the "copy" button.

#### 3.3 Import of insulin doses

Some of the export files (e.g. Glooko) can contain additional data on insulin doses. The insulin doses are automatically processed during the import of sensor data.

If insulin doses have been processed when importing sensor data, a corresponding message is displayed in DPV.



Figure 3.9: Note, that insulin doses have been processed

The processed insulin doses can only be imported via the pump input mask. In this way, DPV ensures that the documentation is complete and that there are no inconsistencies in the insulin therapy.

The insulin doses are imported directly when the pump input mask is called. Depending on the type of data imported, the insulin doses are imported directly or a selection is displayed for which date the insulin doses will be imported.



Figure 3.10: Selection of the date for which insulin doses should be imported

After selecting the date, you can import the insulin doses by clicking the "copy" button.