Pulsating Aerosol

PARI SINUS

Making waves in the nasal sinuses

PARI Service Center
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...if you have any questions about using, handling, cleaning or servicing your PARI inhalation device.

...if you need any information about spare parts for current or older PARI products and/or would like to know where they can be ordered from.

...if your PARI product needs to be serviced or repaired. With the PARI 48-hour repair service, your device will be shipped by our Service department within 48 hours.

...if you need a loan device while your PARI inhalation device is being repaired or while you are abroad on holiday.


Current clinical studies:

<table>
<thead>
<tr>
<th>Status</th>
<th>Study Description</th>
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<tbody>
<tr>
<td>Recruitment ongoing</td>
<td>Sinonasal inhalation of 6% saline solution by patients suffering from cystic fibrosis and chronic rhinosinusitis. Cystic fibrosis 6% hypertonic saline solution.</td>
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<tr>
<td>Recruitment ongoing</td>
<td>Sinonasal inhalation of colistin by patients with cystic fibrosis and Pseudomonas aeruginosa infection. Cystic fibrosis Colistin.</td>
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Current clinical studies:

1) On the penetrability of the maxillary sinus ostium for conventional and vibrating ultrasonic aerosols in the treatment of chronic sinusitis maxillaris.


References:
The nasal sinuses

To treat the lower respiratory tract, the PARI SINUS compressor can also be used. The PARI LC SPRINT® nebuliser is required. Use of a specially developed, new type of inhalation technique is possible with a specially developed, new type of inhalation technique.

The PARI SINUS compressor can be used for the treatment of the lower respiratory tract. The PARI LC SPRINT® nebuliser is required. Vapours can only be reached effectively by pulsation.

With pulsating aerosol, the nasal sinuses are not ventilated unless additional pulsed vibratory nasal massage is applied. This figure shows schematically that the aerosol is only able to pass through narrow openings of the ostia and thus reach the nasal sinuses if it is pulsed.

In an in-vivo “proof-of-concept study” for PARI SINUS, the maxillary sinus (one study showed that when pulsed aerosol is used the quantities (of medication) deposited are 25% greater than with non-pulsed aerosol). Pulsating aerosols perform substantially better in penetrating the ostium of the maxillary sinus.

Useful information

Useful information: Pulsating aerosol - why?

Pulsating aerosol performs substantially better in penetrating the ostium of the maxillary sinus than non-pulsed aerosol. Pulsating aerosol achieves adequate nasal deposition of the active agent.

In order to ensure that pulsating aerosol is able to reach the nasal sinuses effectively, the soft palate must be closed. The pressure resistance that builds up in the nose plug with a pair of scissors.

Without vibration, only the main nasal cavity (shown in red) is reached. With vibration, the nasal sinuses are not ventilated unless additional pulsed vibratory nasal massage is applied.

With vibration, the nasal sinuses are ventilated. The nasal sinuses can only be reached effectively by pulsation.

In a study conducted on dornase alfa in CF patients, the planned operation could be cancelled.

A patient with persistent, chronic sinusitis had already been scheduled to undergo surgery. After a three-month course of steroids (budesonide solution 1x daily for three months), treatment with the PARI SINUS significantly alleviates the symptoms, particularly nasal congestion and rhinorrhoea.