

Table SI. Selected quotes for "unnecessary treatments and procedures" and "symptom triggers"

Theme	Example quotation
Unnecessary treatments and procedures due to inaccurate diagnosis	"At first they thought it was some kind of arthritis. I was given methotrexate as treatment."
	"Before being diagnosed, I used to be given all sorts of things. They treated me for ulcers and appendicitis. They diagnosed me with a lot of other things. I had surgery for appendicitis, but because the pain continued, they thought it was intestinal adhesions, so they operated on me for that. Then they operated for that a second time. Then they told me it was reflux. But none of the treatments helped with the pain."
	"Before I got the diagnosis – I had been treated for allergy all my life with all kinds of strange medications. I have seen quite a few emergency rooms all over Denmark, I guess. That was very stressing, also for my wife."
Symptom triggers	
Accident/injury/ trauma	"I was diagnosed after I had a traffic accident. My face swelled a lot because my left cheek hit the steering wheel. I applied ice but the inflammation grew and I went to the hospital. They didn't know why the swelling wouldn't go down."
Disease/illness	"Now I caught a cold from the toddler...and well, it's fairly constant....Any cold or anything that makes my body react will lead to an outbreak of angioedema."
Physical activity	"My swellings are in hand (e.g. after I have cleaned the windows) and feet (e.g. after I have worn high heels)...."
	"If I ski, I will most likely have an attack because I always fall, and when you fall you have an attack. And riding a bike, just sitting on the seat will give me an attack."
Stress	"When I wasn't well-controlled, I lived with fear when there was any sort of disappointment or situation or event in my life that provoked a bit of tension, knowing that there was a risk that it would produce an episode."
Pregnancy	"In the first 2 trimesters I had [attacks] every 10 days, now, in the last trimester they occur less frequently, i.e. the last attack has been the first in 4 weeks. Maybe my body has adjusted to the pregnancy better now."
Certain medications (including hormone therapy)	"Until a few years ago, in 2007, when they diagnosed me with breast cancer, the attacks were very rare. However, because of the medicine, a hormonal treatment, I started getting attacks every 5 days."
	"It would be good to have learned about the link between HAE attacks and estrogens sooner. I only became aware of this link because of my pregnancies, but it would have been good if somebody had told me earlier. Only recently I was told not to use oestrogen-containing contraceptives. This will also be relevant for my daughters when they are old enough to use contraceptives."

Table SII. Selected quotes for "attack impacts" and "caregiver impacts"

Theme	Example quotation
<i>Attack impacts</i>	
Pain and/or swelling	"This can range from a swelling on the arm or the leg, which can be rather uncomfortable, to a swelling in the stomach, which really makes me so ill that I cannot move." "[Attacks] in the face, then better to not go out because you look like a monster."
Asphyxiation	"I had a violent attack and had to be tracheostomized in the hospital".
Unable to perform daily activities	"I feel like if my hand gets swollen, that day is controlled by that attack. It affects setting the table, cleaning, doing small things that you can't do with the swollen hand. So you can't do much until the swelling goes away.
Bedridden	"My life is very problematic at the moment. I more or less have weekly attacks, my attacks are rather severe, so I need to stay in bed and can't get up for 2 days."
Need to cancel plans	"And it was usually when you were looking forward to something – Christmas or a birthday – then you often got an attack. There you were – and had to say that you couldn't participate."
Unable to travel	"[The attack] prevented me from driving, so I couldn't travel where I wanted to."
Decreased productivity	"There is an effect on my work life, because I sometimes have to cancel job appointments when I have an attack." "I am on these business trips so often. There were situations when I had to leave the road to get to a parking area to inject myself, and this is not funny at all." "When I worked in a clothing store, if I my hand got swollen, there were many jobs there that I couldn't do, like put the prices on things with the little price gun, bag things."
Absenteeism	"About once in 3 months I am sick-listed for a few days." "In my work I have times when I am very busy, I can't stop working, and if I have an attack at one of these times it is a big problem...if I'm not available I could lose my job and it would affect everyone. You have to plan who can cover for you in the best manner. In fact, I have everything prepared to be able to work from home, from the hospital, with the technology we have now..."
Anxiety	"During the attacks I'm usually distressed, very nervous. I mean, I know perfectly what is going on and the consequences, but it's like I'm tense. I'm tense waiting for the consequences, in a way." "It can be inside the throat. Then I am afraid that I won't be able to breathe."
<i>Attack modifiers</i>	
Availability of hereditary angioedema treatment for acute attacks, pre-procedural prevention, and long-term prophylaxis	"Before, we didn't have this medicine and so I had more anxiety, with the worry of travelling in an airplane or of travelling and having an attack when you're there – what will you do in a country where you don't know the language? So it was worse, much more anxiety. If you have the medicine in your suitcase, then you can just administer it yourself or leave it in the hotel and everything is ok. Having access to this medication lowers my anxiety a lot." "When I go to the dentist now have to get an IV placed just in case, which is an inconvenience. But I welcome this discomfort if it avoids others. I had a colonoscopy, and they gave me an injection prophylactically to prevent inflammation." "Last time [I had an attack] I already knew I would get [long-term prophylaxis injection] soon, so this helped to relax me. In other situations, I wasn't relieved so much after an attack had passed because I knew there would surely be the next attack soon."
Patient education and ability to self-administer acute medication	"Before learning how to self-administer the medicine, I was a slave to the disease. I cried a lot and was very depressed. I felt very vulnerable...Having the doors opened to being able to learn to self-administer the medicine has improved my quality of life because now I have control." "My boyfriend has been trained how to inject me, should there be an emergency, so generally I feel safer."
<i>Attack-related resource use</i>	
Acute medication use	"During this last attack, I felt so sick when I woke up and went straight to vomit in the bathroom and thought I had to get my medicine right away. So I had to find a way to find my vein and inject myself."
Treatment visits	"I was given medication at the emergency room – I have an arrangement with the emergency room at [Hospital]. If I have an attack, then I can go there for treatment. As a rule there is someone there who knows who I am – there she is again. And then I get my treatment and can leave again."
<i>Caregiver impacts</i>	
Missed leisure time	"I can only sit down in my chair and just stare. And then my wife has to do all the work at home on her own, because I don't take my share."

Table SIII. Selected quotes for "long-term impacts"

Theme	Example quotation
<i>Psychosocial impacts</i>	
Anxiety about passing hereditary angioedema to children	"I had wanted to have more children, but for me, it was very important to consider the 50% chance of transmitting this to a child....I love children and would have liked to have had many more, but it was too risky.... My spouse and I separated 3 years ago. In a way, HAE also influenced the separation. We separated in part because he wanted to have children and I did not."
Anxiety about future attacks Worry	"My life has changed in the sense that one lives perpetually worried about when an attack is going to occur." "Because of having so many episodes, my mind isn't free, it's always thinking. Because of this, it's prevented me from doing many more activities. I'm so worried about my illness that I can't think of anything else. Stressed. It's a continual and permanent stress. I'm not ever able to be at peace."
Stress driven by uncertainty	"It's the uncertainty that goes along with it. When there is a tiny little mark somewhere. How is going to develop? Will I have to go to hospital or will it just go over? Or is it just a totally normal swelling? It's just the uncertainty and insecurity."
Inability to plan/travel	"Although I have my medicine, when I plan trips, I'm always afraid. I try to lesson that fear, but I always have it when I have to travel outside of [City]. So it affects mostly my ability to plan."
Social/ relationship impairment due to difficulty making/keeping plans	"I can't keep up with others, need to go home earlier from events or from work in the past....I only have very few friends left, because I have always been sick when they had a party or other event."
Inconvenience due to need to transport medication in a cooler	"I didn't do any travelling unless I could get the medication in less than half an hour. And that is a major drag. We like to travel to different countries, and now I always have to carry the drug around in a cooler on battery power."
Limit exercising/playing sports	"I used to enjoy playing ball in the team, but I can't do this anymore because I would be missing a lot of training or match hours." "I have to be careful when playing badminton that the racket isn't in the same place all the time. I cannot just go out for a run with a friend as I would like to. I cannot play handball or soccer either. My activities are very limited."
Absenteeism	"There have been a few occasions when I could not go to work because I needed to have an examination in [City]."
Decreased productivity	"In the workplace, well it's like you're stagnating... When I go to work I want to 'eat the world' because I don't know if it'll happen tomorrow, if tomorrow I'm going to be able to perform my work....The truth is that yes, I do feel that I am at a disadvantage at work, because when you're going to continually perform an activity, you don't want to lose the thread, you could say, right? And when you don't go one day, it's like you lose a little of the thread."
Limited career choices	"I tried to be an airline stewardess but I had to let that idea go because I was afraid I could have an attack while on a flight. So it has even affected my choice of career."
Unable to advance	"Having so many sick days and days where I cannot do my job 100%...I have the feeling that this [has a bearing on my chances for advancement]."
Loss of employment	"I know that my employment is supposed to be terminated because of my disease; this is emotionally stressful for me because I do not know what will happen then. The Office for Integration of the Handicapped tries to help me in this, but the situation is still unsure." "In my previous training I had to stay home sick a lot, but my colleagues/trainers did not understand this at all, they told me I wasn't 'suitable for the German job market'."
Difficulty explaining condition to boss and co-workers and lack of understanding	"My colleagues have hinted sometimes, I think, that they believe this is just rubbish. Because they cannot look into my stomach when I get ill and have to go home. I have the feeling they don't quite believe that this is real. I sometimes feel that people think about me in a way they shouldn't."
<i>Long-term resource use</i>	
Medication use for long-term prophylaxis	"I take [medication] daily. It is supposed to reduce the outbreaks, to have as few as possible. One time, when I reduced the dose a little, they were more frequent. I've taken it for 3 and a half years." "Now I use [medication] twice a week prophylactically, and in case of an attack I inject another dose."
Routine care visits	"Once a year I am in [City] for treatment/examination, and for this I have to take a day off."
Mental healthcare	"Before I started self-administering the medicine, I had anxiety attacks and even had to go to the psychiatrist because this disease gave me anxiety."
<i>Side effects of oral long-term prophylaxis therapy</i>	
	"The side effects were stomach upsets and stomach cramps. So I thought, 'this is not a good idea.'" "[Oral prophylaxis medication] was a catastrophe. I got this when I was 17. My periods stopped, I developed muscles like a heavyweight champion, I was aggressive, I was moody, suicidal. The worst thing a young person can experience. The frequency of the attacks while I was on [medication] was as high as if I had taken no medication, even though I used a high dosage."