



Newsletter from Emotra AB (publ)

Göteborg, October 1, 2018

## Important developments for Emotra

**Emotra has reached an important stage in its development. A few days ago, a scientific article was published based on a compilation of the results of earlier blind studies. It shows that hyporeactivity is a clear and strong marker for suicide risk. Furthermore, the Company was recently invited by one of Great Britain's leading chains of psychiatric clinics to present EDOR® at a seminar for 90 caregivers in London. Emotra has also reached an agreement with a group of Italian researchers on financial compensation to the Company for their use of EDOR in a research project.**

Emotra continues to develop, and our research is breaking new ground. The article that the Company described in a press release on September 4, 2018, was published last week. Our work with that article commenced at the beginning of the year after we had asked ourselves whether it could be shown that previously published results were not a coincidence. With the aid of a mathematical biostatistician, the creator of EDOR took the initiative to calculate whether the probability of reaching the previous study results for suicide risk was equally high among normally reactive patients as in the hyporeactive group. Their statistical calculations showed unequivocally that the results of the blind studies could not have been random ( $p=0.00058$ ). According to the analysis, the risk must be higher in the hyporeactive group than in the normally reactive one. The calculations showed that the risk was in fact 25 times higher (*Odds Ratio = 25.38*) among the hyporeactive patients. The ability to refer to these results is important for Emotra when presenting EDOR to different clinic representatives, since they answer the most common questions we face: How trustworthy are the results from the blind studies and how much higher is the risk in the hyporeactive group? Hyporeactivity is a biomarker for suicide risk and it is, according to previous studies, rather stable over a period of several years.

By carrying out a comprehensive clinical examination, the care team can map the psychologically and socially related risk factors. These factors are significantly less stable over time, as they are affected by the variation in depth of depression, treatment effects and by changes of a more social character.

As a comparison of the importance of "hyporeactivity" as a biomarker with the psychologically and socially related risk factors, we can state that one researcher, who held a presentation at Emotra's seminar in London, reported that patients who feel that their lives are absolutely hopeless and do not see any prospect of their lives improving are 11 times more likely to commit suicide than other people are. This is the single most important psychological/social risk factor, according to the researcher's study.

Hyporeactivity is thus more than twice as strong compared to the strongest psychological risk factor. However, this was not the most important conclusion the caregivers drew during the seminar in London. Much more important was, of course, the finding that the biology-based risk factor can be combined with the psychologically and socially related factors. By testing patients with EDOR and then mapping these patients' psychological and social situation, we can systematically separate the group that in addition to treatment for depression also needs to be protected through suicide-preventive measures.

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*Emotra AB (publ) is a medical technology company that carries out research, development, clinical studies and marketing in the area of suicide prevention. The Company's method, EDOR®, is a proprietary, objective and quantitative diagnostic, psychophysiological test for detecting hyporeactivity in patients suffering from depression. During the test, the patient listens to a series of audio signals. The patient's response, in the form of very small changes in dermal electric conductivity, is measured and analysed. This extremely sensitive and specific test of suicidal risk has been developed as the result of research.*

Emotra AB (publ), Göteborgsvägen 88, SE-433 63 Sävedalen, Sweden

Tel: +46 708 25 45 47, [www.emotra.se](http://www.emotra.se)



**Comments from Daniel Poté, our Marketing Manager**

*“We at Emotra began refining our marketing communication and how we work the market in the middle of January. Even if the science behind EDOR has been known for a long time, the test conceptually means an entirely new way of working for caregivers. Furthermore, most of the clinics we contact are completely unaware of how it can be used in clinical practice. We also need to remember that very few caregivers feel comfortable with being the first to use new health care methods, especially in an area as serious as suicide risk. However, the clinics we have been in touch with have appreciated the method’s scientific basis and the opportunities it opens up in day-to-day clinical practice. Lately, we have noticed that a more well-developed message aimed at a narrower target audience produces a growing number of leads. During the spring and summer, traffic on Emotra’s web site from several countries has increased, not least from the countries we have been actively working. Altogether, we are reaping positive results from our efforts to reach out to caregivers in the cities and regions we initially prioritised and where we are starting to reach more and more potential users. We are very excited about how things will develop for Emotra in the next few months. At the moment, one of the things we are focusing on is disseminating information about the recently published EDOR article to our target markets, how EDOR works and the large risks associated with hyporeactivity.”*

Our marketing efforts are focused on major European cities and the Company is presently negotiating with individual psychiatric clinics, hospitals and hospital chains in some of these cities. Our strategy is to get one or two clinics up and running in each location and then leverage their positive experience to spread the “gospel” of our technology, first locally and then to other cities in the respective countries. The goal of the Company’s largest development project is to make the vast majority of these analyses computer-based and that manual calculation will only be required in exceptional cases as a complement.

As we have previously reported, several studies are ongoing and will be reported as they become ready. The article on our completed multi-centre study, EUDOR-A, is among these. For ethical reasons, considering the results of the previously conducted blind studies as well as Lars-Håkan Thorell’s previous knowledge of hyporeactivity and its associated suicide risk, EUDOR-A was designed as an open, naturalistic study. This means that the study was performed without control groups or comparative populations, and that the clinics were immediately informed of the test results. From Emotra’s perspective, the study can be used as a field study that enables us to examine the practical application of EDOR in near-day-to-day clinical practice. As we have previously stated, some of the most important observations are that the clinics took serious consideration to the test results, and the study produced a much lower suicide frequency compared with earlier blind or partially blind studies.

One group of researchers in Northern Italy would like to use EDOR in one of their own research projects and will be compensating Emotra financially for this use. The value of this agreement is difficult to estimate at the moment, since it will depend on the scope of their project and how long it will last.

**For further information, please contact:** *Claes Holmberg, CEO. Telephone: +46 708 25 45 47, E-mail: [claes@emotra.se](mailto:claes@emotra.se)*

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