SPINE TANGO INFORMATION PORTFOLIO
for hospitals and of national spine societies

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Content

1 The Spine Tango Registry

Spine Tango is an international web-based registry application that collects and evaluates data on treatment effectiveness, patient safety and best practice for quality assurance and research on surgical and non-surgical treatments.

The registry was created and is being continually developed to serve **individual users and hospitals, groups of hospitals** and **national societies**.

Key aspects:

- **Dilemma:** Everyone wants to do quality assessment, but they are doing it independently. Spine Tango was created to develop a common language.

- **Experience:** The registry was established in 2002 and, thus, has a history of 19 years.

- **Funding:** By EUROSPINE.

- **Data:** About 800,000 forms have been documented, including over 220,000 surgeries with over 570,000 patient outcome forms from 17 countries from Europe and non-European countries such as the USA, Australia, and Iraq.

- **Common language:** The registry is constantly engaged in the standardisation of documentation of spinal treatments, definitions, outcome parameters, and, consequently, of spinal care.

- **Spinal treatments:** Standard documentation forms for surgical and conservative therapies are designed to enable documentation of the whole spectrum of spinal treatments.

- **Implants:** A large pan-European implant library has been created. It is regularly updated by MedTech supplier companies and is under continual development. Today almost 200,000 implantable products from almost 40 manufacturers are specified in the library, enabling structured implant documentation and reporting.

- **Quality assurance:** Improving the quality of what we are doing is everyone's responsibility. It is based on standard benchmarking reporting (APPENDIX I) broken down by physician, department, hospital, country etc.

- **Flexibility of the application:** Any additional specialised questionnaires may be added to the registry as a nested study or registry.

- **IT infrastructure**: May be set up locally for national projects incl. content adaptations.

- **Research:** Over 70 original papers have been published and many are in preparation, developed by the international research network of the registry. Among other awards, the Spine Tango article was awarded the *Outstanding Full Paper Award* by *Spine Journal* in 2016. Also, research funding has been granted for several projects.

- **National initiatives:** The Swiss Spine implant registry, SIRIS Spine, is based on the Spine Tango registry.

2 Mission

- Improving spine care by measuring, observing and comparing treatment of various spinal pathologies

- Providing performance benchmarking and developing a collective evidence base of treatment effectiveness, patient safety and best practice based on real life data

3 Key Benefits

3.1 For Individual Users

- **EUROSPINE's approach for registering spinal treatments (conservative and surgical)** in a structured way based on common language across borders (data structure, terms, definitions, outcome measures, implant specifications etc.)

- **Personal research database**

- **Access to a variety of valuable functions** User, hospital and national benchmarking reports (APPENDIX I) comparing data to pooled data from other European hospitals

- **Access to the registry data for research purposes** (around 800,000 forms from five continents have been collected)

- **Participation in an international research network**

- **Access to numerous outcome instruments in various languages** (COMI, Oswestry, NDI, EQ5D-3L, SF36, SRS30, NURICK, DRAM, mJOA, etc.)

- **Evidence of your performance including feedback to users** through online statistics and regular benchmark reports (APPENDIX I) as quality assurance instruments

- **Modern and continually evolving registry platform**:
  o Compliant with the European General Data Protection Regulation (GDPR)
  o Highest standards in information security (ISO27001)

- **Registry platform as a web application** (no specific hardware required; the registry may be accessed from any location via the internet)

- **Electronic outcome collection using ePROMs** (automatically sends forms to patients via email and/or smartphone on a scheduled basis with no administrative burden for hospitals)

- **Access to the pan-European Implant Library**:
  o Facilitates compliance with the European Union Medical Device Regulation with minimal burden to clinicians and hospitals
  o Allows an accurate recordkeeping for every implant device using an industry-supported implant library and barcode and QR-code scanning facility

- **Access to prognostic models to predict patient outcome**, supporting informed decision-making and fostering realistic patient expectations
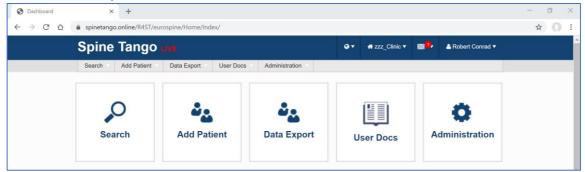
3.2 For national spine societies

- **Access to available data, know-how and infrastructure incl. European Implant Library** (make it your own)

- **Data aggregation to produce statistically robust analyses sooner** (e.g. for national surveillance purposes)

- **'Develop once and share' platform features**: Access to the European Spine Registry generic services including all existing and future tools and functions at no additional cost

- **Flexible modular approach** that allows societies to tailor the registry to their individual needs while ensuring a minimal set of common data

- **Ability to create a personalised spine registry** based on Spine Tango content and infrastructure (optional)

- **Personal database**

- **Quality assurance and research tool** as well as proof of performance

- **Opportunity to develop national best practice standards** in spine care

- **Continuous collaborative development of the registry approach** in accordance with society needs

- **A full voting position on the Spine Tango Task Force** (Spine Tango governance responsible for further development of the registry)

- **Innovative financial model** based on subscription funding from industry reporting that applies certain income to reduce registry costs, registration costs and/or yield shared profits, after fixed costs have been covered
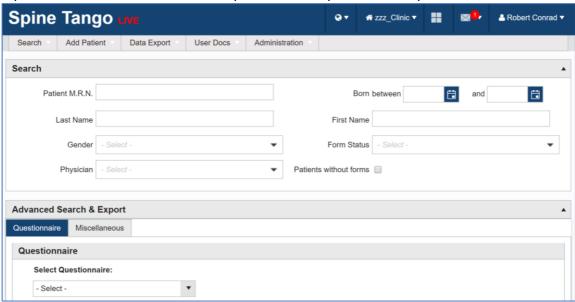
4 Impressions of the ST Registry

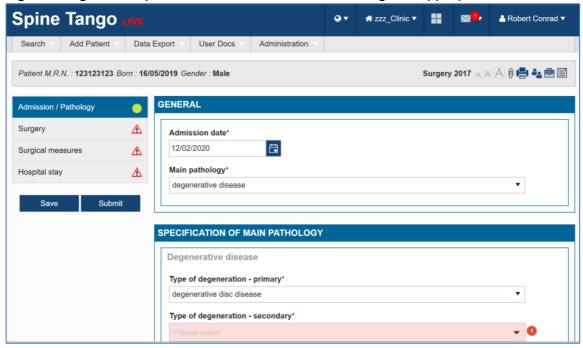The following screen shots are made from the web interface of the ST registry.

The user-friendly dashboard:

A powerful search mask for search queries to find patients and questionnaires:

A guided registration procedure with indication on missing or inappropriate data:

The surgery and conservative forms as well as the key patient reported outcome measure forms can be found here https://www.eurospine.org/forms.htm.

5   Models of collaboration with national spine societies

There are four models how a national society can collaborate with the Spine Tango registry.

	"Basic"	"Basic Plus"	Independent Registry	Customised Registry
Description	✓ This model is based on the common simple use of the existing application, its functions, reports and other services.	✓ This model differs from the basic model with the option of additional services that may be separately agreed upon with EUROSPINE. ✓ A written agreement will be required. ✓ A variety of additional services may be offered. For example, benchmarking of national data to the rest of the world, individualised national reports, central scanning of paper forms, national coordinator, extended data structure etc.	✓ This model allows the establishment of a separate – politically and technically – independent registry (not under the control of EUROSPINE) based on Spine Tango content. ✓ It mirrors the Spine Tango registry. ✓ Such a registry may be modified based on a society's own concept. ✓ A technical set-up of the registry is done by the interested national society.	✓ This model has a wide variety of implementation options and is therefore contingent on the requirements of the new registry. ✓ Technical set-up is performed by EUROSPINE ✓ Registry content and services may be tailored with a high degree of flexibility to meet the requirements of the new registry.
Provider	✓ NEC Software Solutions	✓ NEC Software Solutions	✓ NEC Software Solutions or an alternate provider	✓ NEC Software Solutions
Costs	✓ Free of charge and open to any EUROSPINE member or colleagues who apply for EUROSPINE membership within 1 year of registration.	✓ Some fees may apply depending on the required additional services.	✓ The content of the registry is licenced to the society for €10,000 annually based on an agreement between EUROSPINE and the licensing society.	✓ Dependent on requirements, which are highly flexible.

6   Trend Towards Mandatory Registries

- Documentation of spine care to evidence performance is being made mandatory in more and more countries

- New Medical Device Regulation requires spinal implants in Europe to collect real life-cycle data

Most of us are collecting some data and doing some quality assurance and research. Why not join forces to foster a common language and align initiatives in spine care?

7   Application Provider: NEC Software Solutions in UK

The Spine Tango application is delivered through NEC Software Solutions (formerly Northgate Public Services). NEC hosts a number of medical registries such as the National Joint Registry (NJR), which is probably the largest orthopaedics registry in the world with more than 2 million patient records, and the Indian Joint Registry (IJR) – all of which collect data to help clinicians, regulators and industry deliver evidence-based treatments for patients.

For more information, please visit

- News: Evidence to improve outcomes for spinal patients with EUROSPINE registry (https://www.northgateps.com/knowledge/news/evidence-to-improve-outcomes-for-spinal-patients-with-eurospine-registry/)

- Information on NEC and NEC Registry Solutions (https://www.northgateps.com/software-solutions/health-registries/)

- Article: "What are the essential features of a successful surgical registry? A systematic review" (https://drive.google.com/file/d/1Ekhux3ufjK7-a6w0icR_3fQ4dcJ2Y4sB/view?usp=sharing)

8   How to Join the Registry?

The Spine Tango registry is a EUROSPINE member benefit. If you are not currently a member and your department or hospital does not have a EUROSPINE member on staff, you may still use Spine Tango provided that you or one staff member of your department or hospital become a EUROSPINE member within one year of your Spine Tango registration.

Individual users and hospitals can join the registry in 3 steps:

Step 1	**Step 2**	**Step 3**
Download and complete the [Hospital/User Registration Form](#).[1]	Download, read, complete and sign the [General Terms & Conditions](#)[2] (see [help](#)[3] for assistance).	Send both completed forms to spinetango@eurospine.org.

Once EUROSPINE has received your registration request, EUROSPINE will approve it and provide you (and your colleagues in the case of multiple users) with your account details. Then you can start using the registry.

For more information, please visit https://www.eurospine.org/spine-tango-new-users.htm

9   Contact

For further questions please contact Emin Aghayev (spinetango@eurospine.org) or visit www.eurospine.org/spinetango.

10   APPENDIX I: Sample Quarterly Benchmarking Report

This appendix is an extract of a few pages out of a benchmarking report for an example hospital. The benchmarking report is produced for every hospital quarterly. It describes the registered cases including their diagnosis, treatment and outcomes (like complications and preop and postop pain levels at different time points) by pathology and benchmarks the results to the pooled Spine Tango data.

For more details, please see the next pages.

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[1] https://www.eurospine.org/cm_data/New_hospital_registration_form_20200422.xlsx
[2] https://www.eurospine.org/cm_data/ZURDMS-736023_-_General_Terms_and_Conditions_Spine_Tango_Registry_v3.2.pdf
[3] https://www.eurospine.org/cm_data/How_to_Sign_the_General_Terms_and_Conditions.pdf