An Example of a Governance/Change Process for ePrescribing

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The below is a summary of our governance stages / considerations for change processes in Cerner. The change process in Cerner is complicated by the multiple contributing teams and different build / implementation methodologies. I think the key is that with enterprise solutions a lot of elements are out of (not fully subject to) the pharmacy team's control

Domain strategy

The path to live production is typically a 3 stage process (N1BLD is a development area, N1PRP is pre-production and N1PRD is full live). We usually have additional domains – particularly if we are in planning stages of multiple projects. At the moment we have separate domains for an ED project a PAS project and domains for training. Quite a bit of time is spent on domain strategy to ensure that major changes follow a staged introduction with regression testing between each stage.

Build and implementation strategies

There are a few options, with different change control implications:

- Manual build and configuration in each domain – this is typically the build for meds.
- Build in one domain and a transfer process – this is available for some but not all processes, often requires some transfer and some manual.
- Package installs in each domain – installation of Cerner certified content followed by configuration. These require the technical team.
- Reference data domain synchronisation – linked domains in which reference data can be copied over between domains, validated and then a cutover step, which loads data into live domain, with aliasing of code numbers etc. (we have only just started using this for our bigger projects)

The above may need just meds team or the meds team and technical team (combination of front-end and back-end build)

Scale of projects

The scale of a project will also determine the level of governance. For trust-wide large scale projects e.g. NEWS score and alerts the governance will follow full PRINCE 2 methodology. For smaller scale projects there will be a PRINCE2-lite approach. We used PRINCE 2 lite for paeds and Insulin.

Requesting Change

Change requests have a few different sources:

- Change initiated by my team as part of general system review / development. These are often multiple individual changes packaged into a wider piece of work e.g. Interaction checking would be multiple individually agreed interactions but a single large change process.
- Requests from individual members of staff (informal.) These will either become service desk requests or incorporated into my team's planned development

- Formal work Request Forms – submitted via IT services, reviewed by work request team and forwarded to appropriate team.
- Bespoke request forms e.g. Clinical Trial request
- Service desk requests.
- Requests submitted by a project.
- Troubleshooting changes.

Co-ordinating Change

Following the change request the appropriate team will determine the initial build requirements and build methodology, often with a bit of trial an error in the N1BLD domain. Once the build details are known the following happens:

- Submit change request on Trust's service now system including back-out plan..
- Assign the change a change type - Standard changes are auto approved others need specific approval.
- Changes are reviewed at weekly change advisory board (CAB) (or more frequently if lots of work)
- Change approved / rejected / deferred as needed. Team making change must attend to discuss.
- Change is made and testing undertaken.
- Repeat the process for all domains with approval required at each stage.

Where the change is a Cerner package install, the details of the package will be reviewed by the system architect to determine those parties that may be affected to request them to review and test the install. Where the change is a significant update then the project team will co-ordinate all sub-teams to undertake full regression testing

Over and above change

The above are all of the factors that affect / coordinate change but there are also change processes supplemental to this e.g. The information standards requirements / hazard logs / training guides and communication, governance documents. These may not be part of the change control process as such but are perhaps more important than just logging and checking what has been done

Example documents attached below:

Sample study
request form.docx

sample_change_requ
est[1].pdf

Testing Process for
EKM alerts - Remind

Chemocare

We have two Chemocare domains test and live. These need to be maintained separately although some content can be transferred between them. Test is used for exploring, testing and validation of new functionality e.g. new dose band tables, configuration changes and for system upgrades / patches etc. We used to do our build of new protocols in test and then export into Live once validated. We did however find some issues with the transfer process. Manually building in test and live is time consuming and validation of both is needed, for known functionality there is not much benefit in the test build. We therefore build directly into live (but in hidden mode) and release once validated. The Governance document used is attached below.

Crucially all build in the system is co-ordinated and undertaken by pharmacy staff. We manage business as usual changes internally. For system developments e.g. upgrades, changes to interfaces server changes. Changes must be submitted to a weekly change approval board. This is co-ordinated using "Service now".

Example document:

Network Oncology
ePrescribing v2 gover